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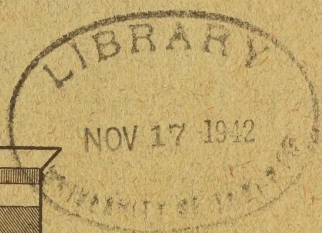
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Ontario Agriculture Dept.

ONTARIO

PREMIER PROVINCE OF CANADA

Review of its Resources
in Field Forest and Mine



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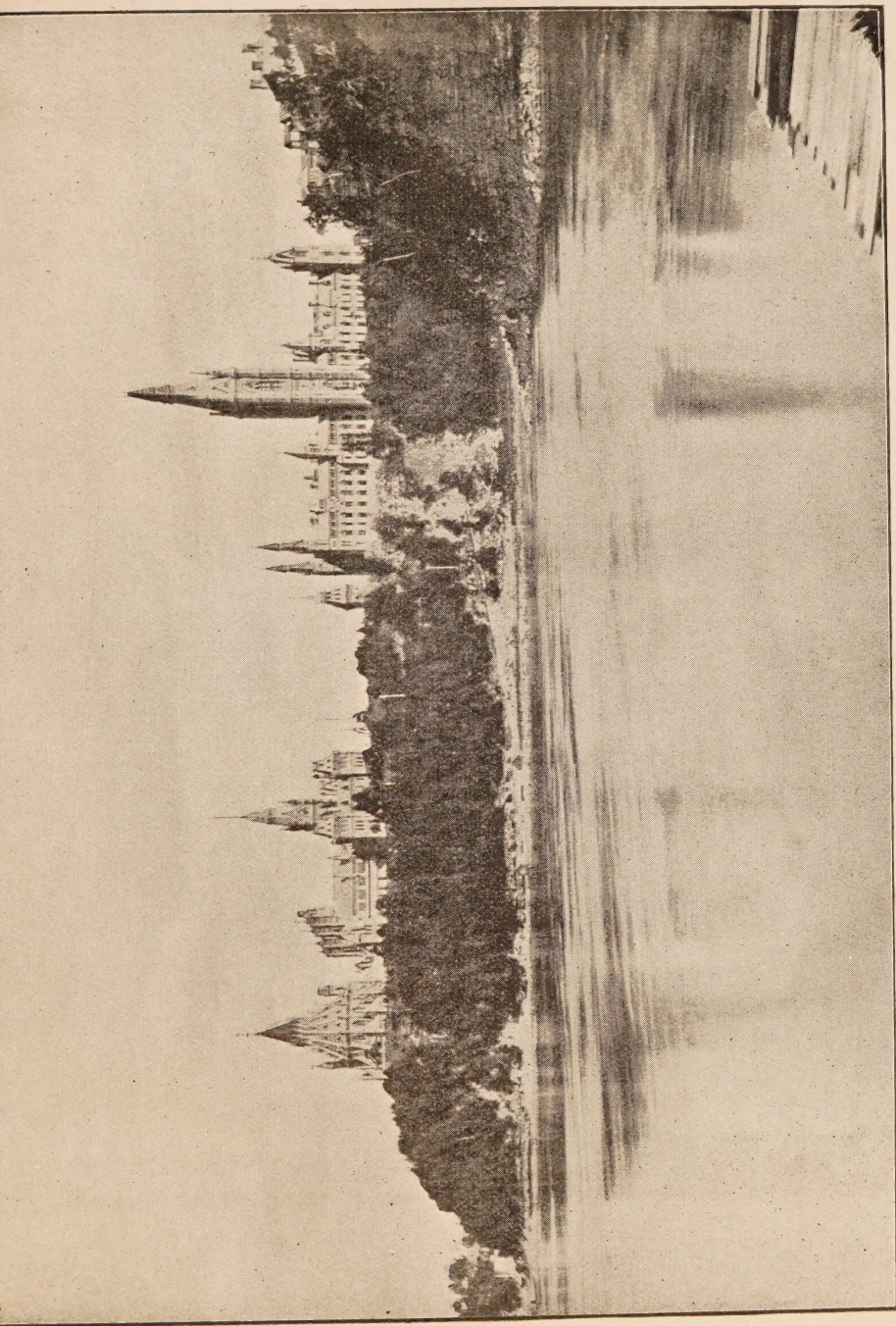
ONTARIO

PREMIER PROVINCE OF CANADA

DESCRIPTION OF THE PROVINCE—POLITICAL
INSTITUTIONS—NATURAL RESOURCES
—ATTRACTIONS FOR TOURIST
SPORTSMAN AND
SETTLER

PUBLISHED BY THE ONTARIO DEPARTMENT OF AGRICULTURE
TORONTO, ONTARIO, CANADA

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WARWICK BRO'S & RUTTER
1897



CANADIAN PARLIAMENT BUILDINGS, OTTAWA, ONT., FROM THE RIVER.


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ONTARIO

INTRODUCTORY

THE recent startling discoveries regarding the extent and richness of the gold deposits of British Columbia and of Ontario, which promise in the near future to place Canada in the front rank as a gold producing country, have done more than anything else to arouse the interest of the world in that country. In Great Britain this interest has been intensified by the determination of the Canadian Government to allow the Mother country certain trade privileges, the result being a notable strengthening of the bond of sympathy between the two countries, and an awakening of enquiry, not only on the subject of gold mining, but also as to Canada's possibilities as a field for the investment of capital generally. In this pamphlet an attempt has been made to meet this demand and to supply information concerning the resources, development and capabilities of at least one portion of the Dominion, namely, the Province of Ontario. It is thought that the time for this is most opportune, for it is undoubtedly of the utmost importance that persons with money to invest should be able to satisfy themselves, not only of the soundness of the enterprises in which they propose to embark, but, in a young country such as Ontario, as to the probabilities of development in the future. To arrive at a legitimate conclusion, a clear knowledge of the country is requisite, and all information bearing upon the subject will be of interest and value.

While it is to the investor and business man, the tourist and the sportsman, and to such as contemplate locating in Ontario, that these pages more directly appeal, still it is believed that the general reader will not find them without interest, though his only object in perusing them may be to add somewhat to his store of knowledge concerning an important portion of the British Empire.

It is a regrettable fact that much misconception exists in the minds both of Englishmen and Americans regarding Canada's fair Dominion. Still Ontarians realize that the British Empire is vast, that its interests are many sided, and that other countries have been forced upon the attention of the public in the past more than has Ontario. "Tommy

Atkins" has had no battles to fight and win in this peaceful Province. No arduous campaigns, minutely chronicled by the press, have concentrated public attention upon her. Neither could she, like Australia, invite thousands to her shores, each armed with pick and shovel as his sole equipment, to search for fortune in her golden sands. Ontario has not filled the public eye for the time being as an El Dorado where fortune was to be had for the seeking. The drama of the Australian and Californian gold fields, with its bitter human struggle, its tales of fortune won in an hour, where men went mad in the greed of gold, and hundreds endured untold privation and hardship to obtain it, has not been enacted here. Ontario's development has been a natural development, and probably, although comparatively slow, the more substantial on that account. Her gold mines, now that they are being opened up, are not "one man mines," but a legitimate industry, requiring capital and skill for its development, just as do lumbering, agriculture and manufactures.

Therefore it is while other countries were clamoring for attention, Ontario has to a large extent been overlooked. She has seen British capital and emigration go past her doors, to be devoted largely to the upbuilding of the United States, in many parts of which a British citizen cannot hold a foot of ground in his own name; and towards the Transvaal, where he has no civil rights, and pays the bulk of the taxes without even the privilege of educating his children in the schools in his own tongue.

But recent events in the United States have tended to check considerably confidence in that country as a field for the profitable investment of capital. The financial crash of 1893, when banks were falling daily, will not soon be forgotten. The present depression and distress in financial and industrial circles, the unrest and uncertainty as to the monetary and commercial policy of the country, the many crises in the stock and money markets, the general decadence of that unrivalled prosperity which in the past has been such a remarkable feature in the growth and development of the American Republic,—all these things are tending to make business men look elsewhere for opportunities to engage in remunerative enterprises.

Canada has waited long and patiently for the attention now being bestowed upon her. The way has not all been bright by any means, and she has not escaped the all pervading depression. But she has known how to wait, and Ontario, the fairest of her provinces, can now come forward, not as a mendicant offspring of the great nation of which she forms a part, but as the province of a country that is rapidly taking its place among the nations of the earth, by the intelligence, integrity and force of its manhood, by its industry and enterprise and the richness of its natural heritage, proud of the advancement made in the past, confident of its position in the future.

Nor does Ontario claim attention for motives of sentiment merely. She is still willing, as in the past, to rest upon her merits, she is pre-

pared honestly to state her case, knowing that she will not compare unfavorably in whatever light she may be placed, let that comparison be where it may. All she asks is intelligent investigation—that the world, and the British public in particular, should take sufficient interest in her to form her acquaintance with a little more accuracy than has been done in the past, being confident that she is able amply to repay them for the effort.

It may be asserted as a fact that the general public in Great Britain and the United States have scarcely heard of Ontario's great mineral wealth, undeveloped it may be, but nevertheless undisputed by those who are acquainted with the facts. As regards gold, Ontario stands only on the threshold of discovery, and while it cannot be said as yet to have a well established gold-mining industry, investigation has now proceeded far enough to warrant the statement being confidently made that the Province possesses a gold country that would appear to be of almost limitless extent, where the mining of the precious metal may be undertaken to better advantage and with a surer prospect of return for the money invested than perhaps in any other gold country in the world. It may be stated confidently (and we court investigation) that those who desire to invest capital in this industry will nowhere find a more favorable opportunity for doing so than in Ontario. They will find not only a gold-bearing area of great extent, richness and promise, but also a country where the industry may be prosecuted to the greatest advantage, both economic and political, where capital may rest secure from the effects of wars and revolutions, and where the natural conditions with which the industry is surrounded serve to aid rather than to hinder the work of the miner.

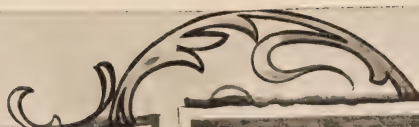
Such advantages as these cannot long remain unheeded, but must speedily attract whatever capital may be required (and it is required) to develop the industry outside of what the country itself possesses. The development of her mines, the inflow of capital, and the opening up of new districts thus occasioned, must stimulate all branches of business, and the new market which will be afforded the farmer for his produce will be no less remunerative than the one afforded by the lumbering industry.

While the activity thus promoted will be good in itself, the indirect results will be still more important. In Australia and California the discovery of gold had the effect of turning migration to those countries. When the keenness of speculation slackened somewhat, energy and enterprise found other channels. So in Ontario, when the development of her gold mines has been carried further forward, the attention of the newcomers will be directed to other sorts of mineral wealth, not so attractive, perhaps, at first sight as the precious metal, but capable of yielding as large or even larger returns for labor and money. Ontario nickel and Ontario iron will be better known because of the population

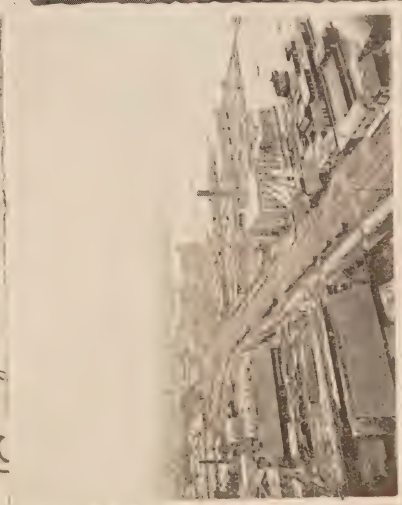
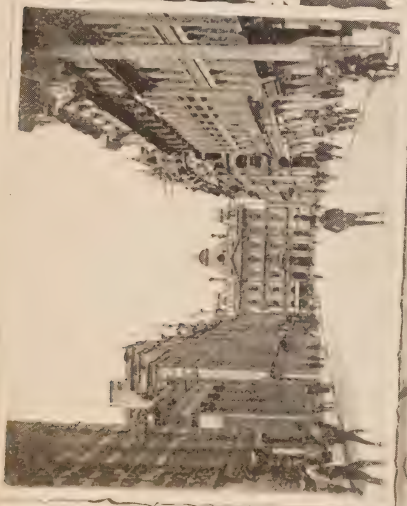
that seeks its shores in quest of gold. Not only so, but attention will be directed in increasing measure to its forest and agricultural resources, and generally to the opportunities the country offers for the profitable investment of money and labor in various fields of industry.

But more than this, the recent interest that has been created in mining in the Province has had the effect of awakening her people anew to the possibilities of the country. Throughout the land there is a general feeling of expectancy. Renewed confidence has been aroused and the impulse has been awakened to go on and make something of Canada. This assurance and confidence in the future is of as much importance as all the gold and silver that may be taken out of the ground. Already a revival is beginning to take place in all lines of business; merchants look forward to the future with assurance, and everyone feels that a quickening of the dormant energies of the country is about to take place, and that Canada is rising on the wave that will insure its steady growth and success for all time to come.

TORONTO.



TWO VIEWS OF KING STREET.



TORONTO STREET.
THE ESPLANADE.

ONTARIO: ITS AREA, PHYSICAL CHARACTERISTICS, GEOGRAPHICAL POSITION, AND ITS RELATION TO THE REST OF THE CONTINENT.—GENERAL DESCRIPTION OF THE PROVINCE.

EXTENT OF THE DOMINION.

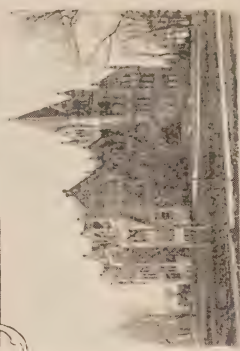
A reference to the map of North America will show that the Dominion of Canada, of which Ontario is a province, comprises the northern half of that continent, with the exception of a block of country at the extreme north-west corner called Alaska, which belongs to the United States of America. This vast territory extends from the Atlantic ocean in the east to the Pacific in the west, its northern limit being the polar region and its southern the United States boundary. It is the largest of all of Britain's possessions, being equal to thirty per cent. of the British Empire, or one-fifteenth of the world's area. It is greater in extent than the United States itself if Alaska be not included; it embraces fifteen provinces and territories and possesses a variety of soils, climates, physical characteristics, and a wealth of resources that few realize. Much of its area is unsurveyed, but its land surface, including that of Newfoundland is estimated at nearly three and a half million square miles, and over this vast domain from ocean to ocean the flag of Britain waves uninterruptedly.

ONTARIO; ITS EXTENT.

The Province of Ontario, with which we have to deal, constitutes, from the length of time it has been known and settled, one of the older provinces of Canada. It forms the very heart and centre of the Dominion, and its progress, wealth and population entitle it to be recognized as the most important of the confederated provinces.

Ontario has an area of two hundred and twenty thousand square miles, with an extreme length from north to south of 750 miles, and a breadth of 1,000 miles. It is larger than the nine north Atlantic states of the American republic by one-third; larger than Maine, New Hampshire, Vermont, New York, Pennsylvania and Ohio combined; larger than Great Britain and Ireland by seventy-eight thousand square miles. It is only four thousand square miles less than the French republic, and only eight thousand less than the German Empire. Its extent can never be fully realized until one has travelled from end to end over its territory. Commence, if you will, at one end, say at Ottawa, and travel by express train on the Canadian Pacific Railway all day and night, all the day fol-

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lowing, and the night following and far into the next day, and you still find yourself whirling over territory belonging to that province. In area Ontario alone is vast enough to become the seat of a mighty empire.

GEOGRAPHICAL SITUATION.

But Ontario has other advantages besides mere extent of territory. Its geographical situation, bringing its southern limits almost to the centre of the continent, and its remarkable water transportation facilities, afforded by the lakes and rivers which bound it on all sides, are points in its favor that many countries might envy.

Consider the position of Ontario on the great waters that open to the commerce of the world,—the mighty inland seas, Superior, Huron, Erie and Ontario, with their outlet to the ocean, the river St. Lawrence. While its northern point is a port on James' Bay, its southern point, further south than Boston or Chicago, is washed by the waters of lake Erie, which forms with the other great lakes, the finest system of inland waterways in the world.

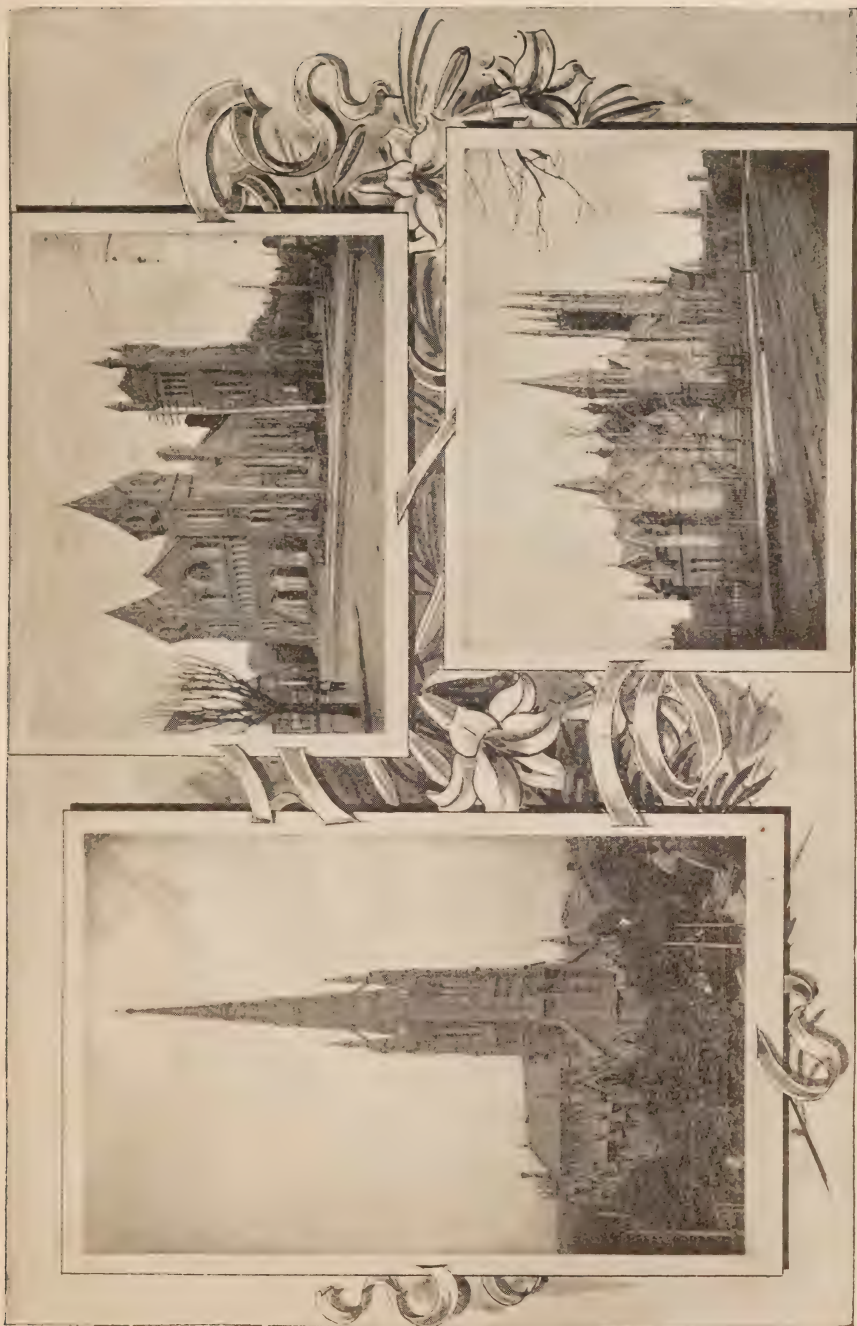
Note how like a wedge the territory of Ontario is driven right into the heart of the great agricultural states of the American Union; consider how many large cities there are on the American shores of these lakes and throughout the territory adjacent thereto, important centres of industrial population which may by means of these waterways be easily and cheaply reached. Consider that by a little deepening and widening of channels and canals that already exist, ocean vessels might be brought to the doors of the citizens of Ontario's capital itself; how with a little widening and deepening of the present canal system at Niagara Falls, these same vessels might pass through lake Ontario and lake Erie, and, after touching at such ports as Buffalo, Detroit and Chicago, proceed on their way through lake Huron to Duluth at the farthest western limit of lake Superior, penetrating half way across the continent, a distance of 2,384 miles, and there tapping the prairies of the West.

Even now there passes through the Sault Ste. Marie canals at the juncture of lakes Superior and Huron in the seven months of navigation a greater tonnage of shipping, American and Canadian, than passes through the Suez canal in the whole year.

Consider these facts and it will be readily apparent that the position and surroundings of Ontario give her many of the advantages of a maritime country including remarkable natural facilities for the cheap distribution of her products, whether of the field, the mine, or the forest, to the markets of the world.

To facilitate description, it is necessary to divide Ontario broadly into two divisions, the northern and the southern, first because the southern half constitutes the settled portion, and second, on account of the distinct difference between the physical characteristics of the two.

TORONTO.



ST. JAMES' CATHEDRAL.

ST. ANDREW'S CHURCH.
THE METROPOLITAN CHURCH.

SOUTHERN ONTARIO.

The settled portion of Ontario forms the triangle or wedge of country, 60,000 square miles in extent, which protrudes southward into the territory of the United States, as previously stated. Southern Ontario contains twenty-three million acres of occupied farm lands, and is for the most part an agricultural country of great fertility. It forms practically an island, washed by the waters of two large rivers, the St. Lawrence and the Ottawa, and three of the Great Lakes, Ontario, Erie and Huron, thus possessing opportunities for commerce such as few other inland countries enjoy. Nearly the whole of Ontario's population of 2,114,320 is contained within these boundaries; and the country is for the most part thoroughly organized and developed in a manner similar to European countries or to the adjacent States of the American Republic, having thorough municipal organization, a complete school system, abundant railway communication, and adequate postal and telegraph facilities.

To the traveller in southern Ontario it will at once be apparent that the country he is passing through is a farming country which has already reached a high state of development. On every hand he will see well cultivated farms, comfortable homesteads and commodious farm buildings, indicating that if the present is a time of some depression, the past at any rate cannot always have been so. Towns and villages are on every hand, and here and there cities of some pretension lie in his path. The scenery may not impress him with its variety or its grandeur perhaps, but, on the other hand, the great capacity of the country agriculturally cannot fail to arrest his attention. If he should be travelling from end to end of the Province by one of the great systems of railways which follow its southern border, he may gaze hour after hour, until the whole circle of the twenty-four has gone around, on an endless vista of fine farming country, laid out with that regularity and precision which is a characteristic feature of the New World, into its 150 or 200 acre farms, each containing a homestead and cultivated by its individual owner. There is an air of largeness, of peacefulness and of productiveness about the country which might become almost monotonous were it not for the luxuriance of the vegetation, the brightness of the sky, the sunniness of the landscape. He must admit that it is indeed a pleasant and a fruitful land, evidently designed by the Creator to be the home of a large, independent and thriving community, and a country that one well may contemplate with feelings of contentment and satisfaction.

Southern Ontario may therefore be described as a purely agricultural land, suited by its soil and climate to all branches of farming. In this respect it is very similar to New York State and other adjacent States of the Union. Generally speaking, the land is of an undulating character and presents but few noteworthy inequalities of level. For the most part the soil is a clay or a clay loam, and for natural fertility is unexcelled, if equalled, by any similar section in the United States.

TORONTO.



SHERBOURNE STREET.

JARVIS STREET.

ST. GEORGE STREET.

Along the shores of the river St. Lawrence and lake Ontario, the country has an elevation of from 100 to 200 feet above the sea level. From lake Ontario northward the land rises in a succession of terraces until a height of about 1,000 feet is reached, after which it dips down again to 700 feet in the lake Simcoe basin; then rises again to a somewhat greater altitude in the broken lake districts of Muskoka and Parry Sound, frequently referred to as the "Highlands of Ontario."

At the western end of lake Ontario there is an abrupt elevation of some two hundred feet. So sudden is the break in the level that the land rises like an embankment or wall, known as the "Niagara escarpment." This escarpment extends northward across the province in a direct line, from the Niagara river, where it gives rise to the well known Falls of Niagara, to Cabot's Head, a notable promontory on the Georgian Bay. Westward from the escarpment the country stretches out into a broad, level table land, which, from its greatest elevation of about 1,000 feet, slopes gradually downward on either hand to the level of lakes Huron and Erie, which bound it, about 575 feet above the sea. This immense table land is of almost uniform fertility over its entire extent, and constitutes the finest and most advanced agricultural section, not of Ontario only, but of the whole of Canada. Throughout its whole area it is unbroken by lakes, and its rivers are small and unimportant. It is the most southerly section of the Province, and on this account, and also owing to the fact that it is almost surrounded and enclosed by the Great Lakes, its climate is exceedingly salubrious and more temperate in winter than other sections. In this respect it bears much a same relation to the rest of the Province as the southern and western counties of England bear to other portions of the British Isles. Its most favorable districts produce peaches and grapes in the open field with the greatest luxuriance. Hops and tobacco are cultivated in some localities, and even cotton has been grown successfully.

The Great Lakes.	Length. miles.	Breadth. miles.	Depth. feet.	Elevation. feet.	Area in sq. miles.
Superior.....	420	170	1,000	600	31,500
Michigan.....	320	70	700	576	22,400
Huron.....	280	105	1,000	574	21,000
Erie.....	240	57	200	565	9,000
Ontario.....	180	55	600	235	5,400

N. B.—The international boundary line passes midway through each of these lakes with the exception of lake Michigan, which lies wholly within the United States.

NORTHERN ONTARIO.

In a country so vast in extent as Ontario, one would scarcely expect complete uniformity of climate, productiveness or development. Thus it happens that while some sections are especially adapted to the growth of crops and live stock, such as the southern portion already described, there also exists a vast extent of territory totally different in its characteristics, the natural resources of which are rather of the mine and the forest than of the farm.



A RIVER SCENE : NORTHERN ONTARIO.

As the pioneers in the early days in Ontario proceeded northward, hewing down the forest before them in their path and preparing the land for the plow, they soon found that the country underwent a complete change in its character. Instead of the continuous stretch of arable land they were accustomed to in the south, they found rock and river, hill and lake on every hand, and almost impenetrable forest ; and so unsuited did it appear to farming purposes that they soon desisted from their efforts to settle it. Later on the lumberman penetrated its more accessible regions, and as that industry grew and thrived, towns and villages sprung up here and there devoted largely to lumbering, saw-milling and kindred businesses. A certain amount of settlement naturally followed in the wake of the lumber industry, but a far greater number preferred the

fertile plains of Manitoba rather than the rough and broken country to which we refer. Thus it is that even to-day its southerly limits are only sparsely settled, and its towns of any pretension are few in number and widely scattered. In the still more remote regions of the north the country is practically unknown and unexplored, and remains the *terra incognita* of Ontario. We may take the Canadian Pacific Railway extending across the province from east to west as the dividing line, and state that, approximately, the whole of the country lying between that and Hudson Bay is little better known to-day than it was fifty or seventy-five years ago.

This northern country (sometimes called "New Ontario" from the fact that its actual possession by the province as a part of its territory is a matter that has only recently been set at rest) extends northward and westward from the older settled portion to James Bay and the Albany river. Its vast extent is hard to comprehend, comprising as it does an area of about 140,000 square miles, a considerably greater territory than the settled portion of the province. The unexplored portion alone is equal in extent to one-half of the entire province. Yet so valuable are its resources proving to be that the question of its development in relation to the future prosperity of the province as a whole in becoming one of ever increasing importance, and it is, therefore, necessary to examine this country somewhat in detail in order that its capabilities may be understood.

Scientists tell us that throughout this region the fundamental rocks upon which the very foundations of the continent are laid here come to the surface and are laid bare. They are known as the Laurentian and Huronian rocks, to which the general term Archæan is applied, as denoting their extreme age, for they belong to the very oldest of the earth's rock formations. They exist largely not only in Canada, but cover extensive areas in the United States as well. In Ontario the region can scarcely be called mountainous, as it is in the States of New Hampshire and Vermont, for although the mean altitude is considerable, there are few elevations worthy of the name of mountain. A relatively large portion of the area is covered with innumerable lakes. The land surface is generally hilly and broken with ridges of rock, which often rise precipitously above the rocky lake basins, forming rugged cliffs or bluffs. Everywhere, except where fires have devastated it, or settlement has taken place, the country is still covered with a dense growth of forest. One of the most remarkable features of the country is the endless number and variety of its lakes. They have to be seen to be realized, for they exist in hundreds of thousands, and range in size from a hundred miles and upwards in length to tiny rock basins. They generally show a tendency to run in chains and groups, having, geologists state, been eroded from the country rock by the action of glaciers in remote antiquity. These water courses afford a means of travelling by canoe in almost every

direction, which is indeed the only way by which the interior of the country may be penetrated. They are often exceedingly picturesque, containing innumerable islands of round-backed rocks clothed with a scanty growth of pine, spruce or tamarack, and other trees characteristic of Canada's northern forests, and thus constitute one of the typical features of the scenery of these wild and remote regions of Ontario's northland.



VOYAGING BY CANOE IN NORTHERN ONTARIO.

It is hardly to be wondered at that for a long time northern Ontario was looked upon as an inhospitable and worthless region of water and rock. The fact was deplored that it was not a farming country like the rest of Ontario, and there can be no doubt that its forbidding aspect has greatly retarded its exploration and development. But as time has progressed, it has been gradually demonstrated that it possesses not only great forest wealth but even greater mineral wealth; and not only so, but that certain sections of it are not at all to be despised from an agricultural point of view. It is true that a relatively small area has been prospected, yet such discoveries of gold, nickel and iron have been made as are perhaps unique in their extent and value, to say nothing of the existence of silver, copper and other minerals.

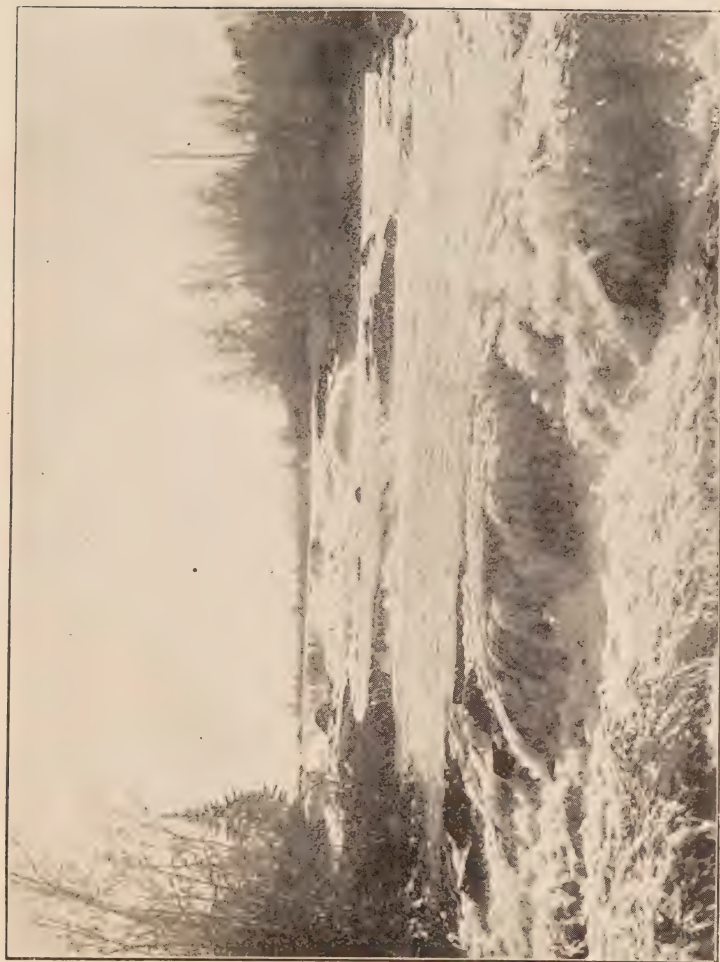
In addition to its minerals, it has a forest wealth which will if properly husbanded supply the needs of the lumber trade, one of the most important industries in Ontario, for an indefinitely long period. Its forest and mineral wealth constitute this section of country, or at least the borders of it, the seat of the mining and lumbering industries at the present time.

It is true as just stated that many parts of this northern land are too rough and rocky for tillage, and that it cannot on that account be classified as an agricultural country. Yet there is a minor portion of it aggregating millions of acres which is covered with an alluvial soil of great richness and is capable of supporting a considerable population. Some of these sections are as full of promise as any of the older counties. This is especially true of the Rainy river and Whitefish valleys, west of lake Superior, where the soil is wonderfully productive. There are many other areas of equal excellence, as for example the valleys north of lake Huron, the region around lake Temiscamingue on the upper Ottawa river (where six million acres have been surveyed) on the north and west of lake Nipissing, the valley of the Vermillion river and elsewhere. Much might be made of these sections agriculturally, for the soil is admirably adapted to the growing of grain, roots and vegetables, while its rich grasses and plentiful waters make the country a typical one for the production of the finest qualities of beef and mutton, butter and cheese.

It must not be supposed therefore that Ontario has yet reached the limits of its possible agricultural development. This is not the case even in the older sections, and the fertile tracts in the northern districts are as yet but very sparsely settled. These sections are capable of providing productive farms for thousands and assume so much importance and value when looked at in conjunction with the mining and lumbering industries in a country that is not strictly speaking agricultural, that their capabilities will be found more completely described elsewhere.

The Hudson Bay Slope.

Northward of the Laurentian region in Ontario, and bordering on James' Bay and the lower part of the Albany river, the formation of the country belongs to the Silurian and Devonian rock systems, and in that respect resembles southern Ontario, although it is here of even greater extent. This section is of a much lower altitude than the intervening rocky country; so that if a line were followed due south from James' Bay to lake Ontario, the land would be found to rise gradually from the level of James' Bay until a maximum altitude of 1,600 feet is reached in the Laurentian area, after which the country again slopes gradually southward towards lake Ontario. The region of maximum altitude, called the "height of land," extends across the northern part of the



ONTARIO'S NORTHLAND: A NAMELESS FALL.

Province generally in an east and west direction. It forms a natural divide for the drainage of the country, the rivers north of it flowing into James' Bay, an arm of Hudson Bay or sea, and those south of it, to the great lakes, the St. Lawrence river, and thence to the Atlantic.

Of the country north of the "height of land" very little can be said, as it has scarcely been touched by the foot of white man and then only in rare instances by the hunter and the trapper. What its mineral, agricultural or timber resources may be no one can accurately tell, nor can its physical features be described, for they are not sufficiently well known.

Vast in extent is this unknown northland of Ontario,—a land of grandeur of lake and forest and river; a country of silence and solitude. The moose, the cariboo, the bear, the deer, and the otter and the beaver still possess it; and are left unmolested save for the few scattered Indians who hunt them for purposes of trade. Its waters abound in the trout, the bass and the pike and other fish, and it may well be considered a sportsman's paradise. Neither the lumberman nor the settler have yet penetrated its interior; no railways traverse it, and exploration, except such as consists in following the mazy courses of its principal rivers and lakes by canoe, is a risky and arduous undertaking. One may travel these waterways for months at a time without meeting a single white man, and the Indian population is exceedingly limited.

As will be seen, this northern country constitutes Ontario's reserve force as it were; something she has held back all these years lest she should scatter her bounties with a too prodigal hand. It is a store house for the products of the forest and the mine, which, if properly husbanded, may be drawn upon for many years to replenish the coffers of the government of the province and promote the prosperity of its people.

THE ONTARIO CLIMATE.

A great deal of misconception exists regarding the climate of Canada. The idea is still very prevalent in England and the United States as well that snow and ice are its dominant features. It is not to be denied that, during the winter season, Canada enjoys real winter weather. It is not a mixture of rain, sleet, slush and fog, but a season of crisp frost, sparkling snow, blue sky and dry, invigorating atmosphere. But, on the other hand, a Canadian summer is equally real, and, apparently, dwellers of the British Isles find it difficult to comprehend that a country which has winters of some severity may also have summers that average quite a few degrees warmer than those enjoyed on the English Southcoast.

To a native of Great Britain, a Canadian winter presents many interesting features. Canadian winter sports, too, are certainly very picturesque and have afforded novel material for the painter, the writer, and the poet. Yet Canadians do not live on snow-shoes (indeed it is doubtful if in Ontario one man in a thousand has ever worn a pair)—they relegate them to the lumbermen and the backwoods, and in southern Ontario, at any rate, there are few opportunities of indulging in a snow-shoe tramp even as a sport. Neither do they revel continually in snow-drifts and ice palaces as some would have us believe. Unfortunately, these things have been presented to the public so frequently that the very name of Canada has become almost synonymous of them, and the reverse of the picture has been lost sight of. A winter in Canada to those possessing health and strength is certainly a most enjoyable season, far more so than the corresponding period of the English year. The bright sunny days and crisp atmosphere are most exhilarating.

Then, too, it must be remembered that Canada is a vast country, extending over twenty degrees of latitude, from that of Constantinople to the arctic regions, and consequently it embraces a wide range of climate. In the southern portion of Ontario the winters are, as a whole, quite moderate. Progressing northward in the higher altitudes, the season becomes correspondingly colder. In the southern region it is always late in the year, or sometimes the beginning of the New Year, before winter actually holds complete sway; it advances and retreats. There are many warm days mingled with the frosty ones, and summer dies hard, fighting every inch of the way. It is no uncommon thing for the weather to be so warm about Christmas time that even a light overcoat may be dispensed with. When winter really sets in, there is usually about twelve

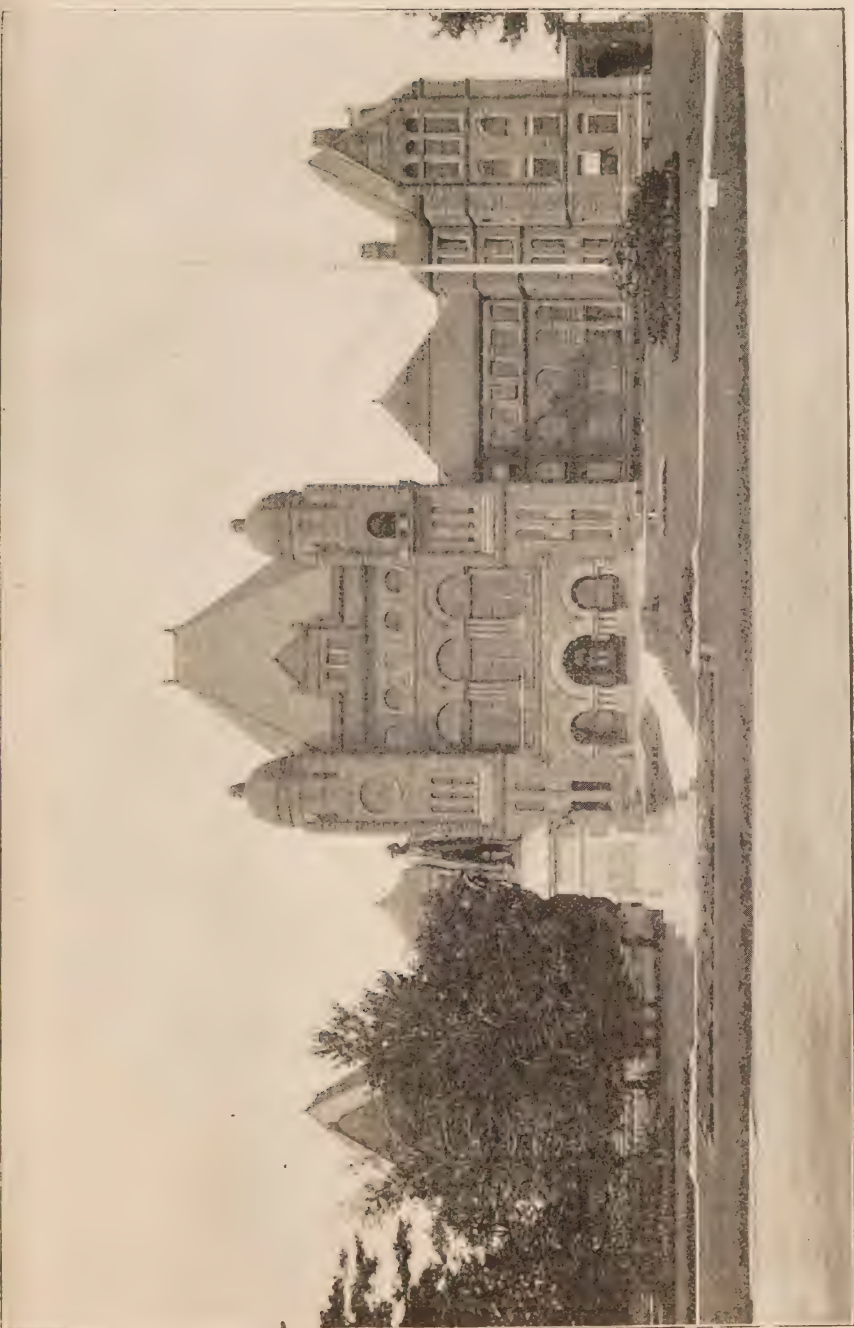
degrees of frost on an average in the day time. The nights are of course colder, and occasionally the thermometer will take a dip to zero or one or two degrees lower for a few days at a time. In March the weather moderates, but it cannot be considered that the winter is safely over till that month is out.

During April and the early part of May there is usually considerable unsettled, rainy weather, and spring is apt to drag somewhat. It is the intermediate or early spring season that is the most trying feature of the climate—a time that is neither winter nor spring, but which serves to prolong winter when one wishes it were over, and that the warm, balmy days would come again. But May often sees some very warm weather, and by the end of that month vegetation is in full leaf. From the time the buds first open the growth is exceedingly rapid. Summer is upon one before you quite realize it, and from then on until the end of September an almost uninterrupted stretch of fine weather may be looked for. Canadian midsummer weather is sure to be pretty warm. It is usually from seventy-five to eighty degrees in the shade at midday, and occasionally even higher.

But of all seasons of the Canadian year, the autumn is perhaps the most enjoyable as well as the most beautiful. “When the frost is on the pumpkin and the corn is in the shock”—when the trees have taken on their gorgeous autumn coloring (which is such a noteworthy feature in Canada), and a hazy stillness pervades meadow, lake and forest, then it is that the Canadian landscape has a charm that only the brush of the painter can attempt to depict.

The following table gives the annual rain and snow fall in Ontario by districts, the average of fourteen years being taken :

District.	Rain in.	Snow in.
West and southwest	26.74	61.64
Centre	24.89	62.38
East and northeast	23.10	81.40
North and northwest.....	23.42	105.19
Provincial average.....	24.54	77.65



ONTARIO PARLIAMENT BUILDINGS, TORONTO.

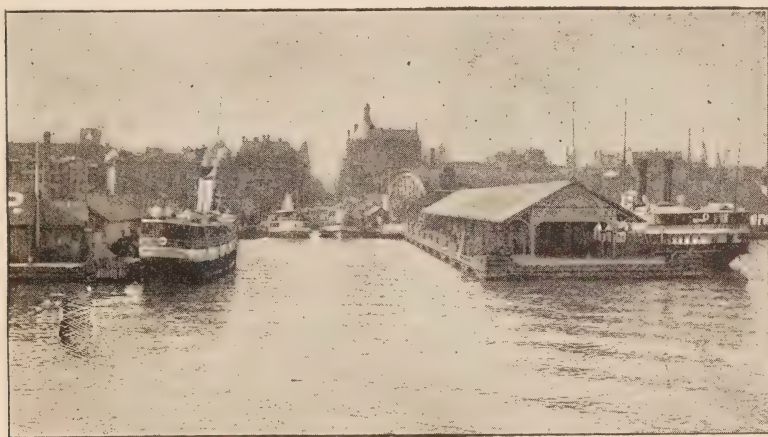
Table showing for each month the highest, lowest and mean or average temperature at ten well distributed stations in Ontario in 1896; also the annual mean for each station :

Months.		Saugeen.	Birnam.	London.	Woodstock.	Stony Creek.	Toronto.	Lindsay.	Gravenhurst.	Ottawa.	Rockliffe.
		°	°	°	°	°	°	°	°	°	°
January...	Highest ..	36.0	38.0	40.0	38.0	38.0	37.7	32.9	32.0	38.6	32.0
	Lowest ..	-14.2	-4.3	-4.0	-9.0	-9.0	-10.3	-21.0	-36.0	-25.0	-37.0
	Mean ...	21.14	23.65	23.57	21.92	24.02	22.18	14.34	13.27	11.89	7.53
February .	Highest ..	43.2	45.5	47.5	44.5	52.0	48.9	44.0	45.0	43.0	42.0
	Lowest ...	-20.7	-14.7	-17.0	-23.5	-14.0	-17.9	-33.8	-36.0	-30.7	-37.0
	Mean	20.51	22.35	23.35	22.00	24.84	22.62	16.00	16.78	12.97	10.60
March	Highest ..	49.8	58.7	69.5	55.0	62.0	54.9	45.6	45.0	45.0	50.0
	Lowest ...	-4.5	0.8	-4.0	-2.5	2.0	4.6	-5.1	-16.0	-9.2	-25.0
	Mean	20.16	24.60	25.34	22.77	26.61	23.57	18.25	17.31	18.69	14.41
April	Highest ..	79.0	84.7	84.0	85.0	91.0	79.7	81.6	78.2	82.8	83.0
	Lowest ...	13.1	19.5	18.0	15.0	20.0	18.3	10.6	11.0	13.0	12.0
	Mean	44.99	50.05	50.32	47.63	47.34	45.97	45.01	44.83	43.81	43.35
May	Highest ..	84.9	88.9	89.0	86.2	93.0	90.8	87.6	81.0	90.5	91.0
	Lowest ...	33.1	35.0	37.5	37.0	40.0	36.5	36.4	33.0	37.1	30.0
	Mean	56.16	62.85	65.22	61.16	61.79	59.79	59.25	58.59	59.15	57.46
June	Highest ..	83.9	86.2	86.0	86.2	92.0	86.3	89.6	87.0	87.4	89.0
	Lowest ...	37.1	37.4	38.0	39.0	41.0	41.9	38.8	38.0	42.5	37.0
	Mean	62.02	64.25	68.89	65.33	65.92	64.75	64.06	64.89	64.08	63.55
July	Highest ..	85.9	89.9	89.0	88.0	94.0	91.3	93.9	90.0	92.8	92.0
	Lowest ...	43.6	43.2	42.0	45.0	47.0	47.2	44.8	45.0	48.5	45.0
	Mean	65.83	69.80	71.82	68.95	71.81	68.72	67.72	67.95	68.94	66.40
August....	Highest ..	91.4	93.0	92.5	91.0	95.0	89.9	95.6	90.0	92.1	92.0
	Lowest ...	42.1	42.5	38.5	35.0	43.0	42.3	38.2	40.0	41.0	42.0
	Mean	64.87	67.45	68.93	66.15	71.77	67.49	66.92	66.61	66.99	64.92
September.	Highest ..	79.0	83.7	87.0	86.0	92.0	86.3	89.4	84.0	89.0	84.0
	Lowest ...	28.1	34.5	27.5	25.0	30.0	27.6	23.9	24.0	30.0	26.0
	Mean	54.95	58.13	59.31	56.57	60.94	57.41	55.42	55.22	56.08	53.80
October ..	Highest ..	70.0	71.0	70.0	68.9	73.0	66.8	65.9	65.0	64.0	65.0
	Lowest ...	23.1	23.8	23.0	20.0	28.0	28.7	24.7	24.0	25.8	24.0
	Mean	42.01	44.90	44.93	42.83	45.96	44.77	41.67	42.54	43.07	41.50
November.	Highest ..	64.0	63.7	64.0	63.5	70.0	63.8	60.3	60.0	61.0	61.0
	Lowest ...	17.1	12.0	15.5	14.4	20.0	17.5	9.5	18.0	8.2	-2.0
	Mean	37.59	39.70	39.48	37.89	43.17	39.45	36.59	36.55	34.81	32.58
December.	Highest ..	50.2	43.8	51.5	49.4	55.0	48.9	42.1	39.0	41.0	40.0
	Lowest ...	3.6	-4.0	1.0	1.0	-8.0	1.1	-11.5	-13.8	-15.0	-18.0
	Mean	27.07	27.03	27.02	25.52	29.90	27.84	22.10	21.61	16.99	16.02
Annual mean, 1896..		43.11	46.23	47.35	44.89	47.84	45.36	42.28	42.18	41.46	39.34
Average of 15 years.		42.03	44.36	45.55	44.16	46.67	44.27	41.32	40.95	40.88	37.05

ONTARIO'S INDUSTRIAL CENTRES.

TORONTO.

Toronto, the flourishing capital of Ontario and the second city of the Dominion, is situated on the north shore of lake Ontario. It is a city of considerable commercial and industrial importance, having extensive iron foundries, rolling mills, railroad and street car building shops, pork packing establishments, carriage factories, distilleries, and other important industries. The chief shipments are grain, live stock, lumber, oils, furniture, machinery, farm produce, fruit and fruit trees, flour, pressed brick, tin work, bridge work, steel and cast iron piping, beer, whiskey, groceries, paints, oils, varnishes, dry goods, etc. Its population is about 200,000.



YONGE STREET WHARF, TORONTO.

Toronto, "the Queen City of the West," as it is sometimes called, is of recent growth, dating back but little more than a hundred years. In the middle of the last century the site was a trackless wilderness, as was the rest of Ontario, the only inhabitants being a powerful tribe of Indians. In 1749, the French Government established a trading post where the city now stands, bearing the name Fort Rouille. Not long after, the country passed into the hands of the British, and little change seems to have taken place during the next half century. In 1793, however, Lieutenant-Governor Simcoe transferred the seat of government from the town of Niagara, at the mouth of the Niagara river, to this site, being attracted by the advantages of its situation and by its natural harbor, capable of meeting the greatest demands of commerce. On landing, Simcoe pitched his tent near the shore and soon a large body of men were clearing the forest and cutting roads. He named the city York, and

superintended the development of the infant capital until his recall to England in 1796. After this, the young city experienced troublesome times, and its pioneers were early taught that security and independence were only to be obtained after bitter conflict. The war with the United States in 1812, turned all thoughts towards defence, and for nearly three years the city was under arms. An era of comparative peace followed, and the city was again placed on the highway to prosperity. In 1834, it was incorporated under the name of Toronto. In 1867, on the federation



THE DRIVE, ROSEDALE RAVINE, TORONTO.

of the various provinces of Canada, Toronto became the capital of the Province of Ontario. This fact gave a great impetus to its commerce, as did also the completion of the gigantic railway systems of Canada which placed the city in communication with the entire length and breadth of the continent.

The Canadian Pacific and Grand Trunk Railway Companies operate eight branches of railway radiating to the north, east and west, while the lake traffic over various lines of steamers is very great.

The site of the city is low, although it raises gradually from the water's edge to an elevation of over 100 feet above the lake level. The streets resemble those of the modern cities of the United States, being laid out on the rectangular plan, and there is an up-to-date appearance about the whole.

In general attractiveness there are few cities on the continent of America to equal it. It is seen at its best in the summer or autumn

months, and all who visit it then admit its charm. All except the principal business streets are boulevarded and lined with shade trees which give it a verdant aspect that one is not accustomed to find except in country towns. Green grass and luxuriant foliage meet and refresh the eye everywhere, and render the life of the city dweller a thing to be endured even during the hottest months of the summer.



THE RACE COURSE, TORONTO.

One of the chief charms of Toronto is the beauty of its private residences, surrounded as they are in so many instances by lawns, gardens and trees. Indeed Toronto is essentially an ideal residential city and has been aptly termed "a city of homes." A drive through its many beautiful parks and its pleasant shady streets lined with stately residences and comfortable homes cannot fail to impress this fact upon the visitor. It may truthfully be said that as a city to dwell in Toronto has few equals.

Not least among the city's attractions is the Toronto Island, a narrow strip of land which extends almost across the city front and protects the bay or harbor from boisterous weather on the lake. The Island forms a readily available summer resort for Toronto's citizens, a number residing there in summer cottages during that season. There is constant communication by ferry with the city, and these craft together with yachts, canoes, and other vessels of all sizes and description give the bay a very lively and attractive appearance.

Fine lines of steamers connect the city with Montreal, Hamilton, St. Catharines and Niagara. From Toronto across the lake to Niagara, and thence to the Falls, or even to Buffalo by the Niagara River electric road, and return, is a delightful outing for a summer day, and one that Toronto citizens often avail themselves of.

Toronto possesses some fine government, municipal and commercial buildings, and is especially noted for the number and beauty of its churches. It has several large departmental stores and a wholesale quarter of some importance. It has good telegraph and telephone facilities, and fifteen chartered banks. Its retail business streets are not so imposing, so far as the buildings are concerned, but almost all are paved with asphalt or brick. All the streets and principal shops are electric lighted, and there is an especially well equipped electric car service to every part of the city. It is the centre of a very extensive system of railways formed by the Canadian Pacific and the Grand Trunk and their various branches.

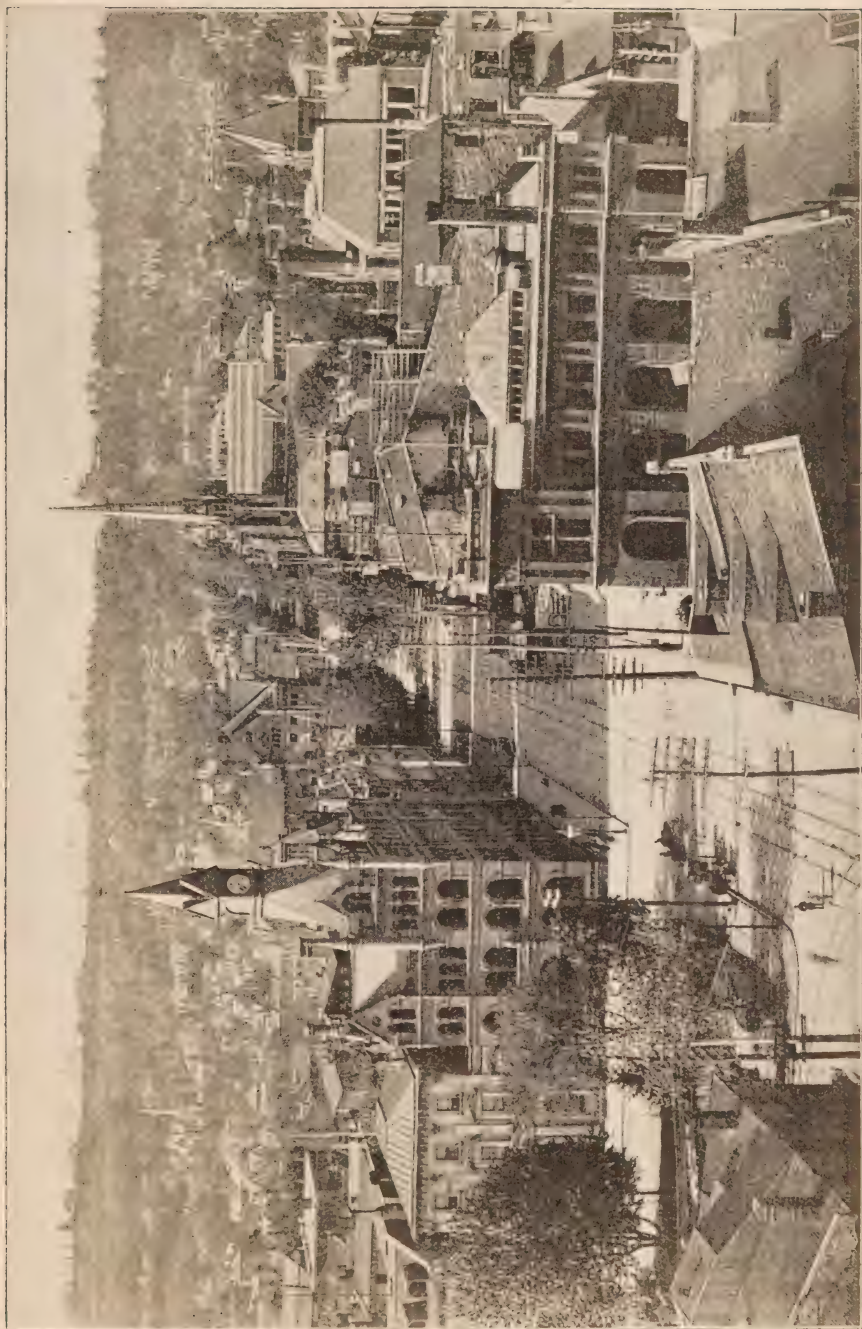
Toronto's institutions of learning make it the educational centre of the province, and to some extent of the Dominion. The University of Toronto is one of standing and importance. There are also a number of medical and theological colleges, schools of dentistry, a law school, and two colleges of music, a veterinary college, technical schools, etc.

The city possesses three theatres and a fine concert hall capable of seating 2,000; and has its fair share of dramatic and musical attractions as compared with other cities of its size on the American continent.

HAMILTON.

The handsome and prosperous city of Hamilton, the third city in population in the Dominion of Canada, is very attractively situated on a beautiful bay at the extreme western end of lake Ontario, 40 miles by rail southwest of Toronto, and 56 miles northwest of Niagara Falls and the American border. Population 50,000. Hamilton occupies an alluvial plain lying between the bay and the escarpment (or "mountain" as it is locally called,)—a continuation of the height over which the Niagara plunges at the Falls. From this summit a magnificent view may be had. The city lies immediately below, and beyond it the broad blue waters of lake Ontario stretch away to the eastern horizon. The plain is covered in all directions with fine farms and dotted with thriving villages, for the city is the center of a magnificent farming section devoted largely to fruit. The spires of Toronto may be dimly discerned on the north side of the lake, forty miles away; and to the south on a clear day the mist from the Falls of Niagara, at about the same distance, may sometimes be seen.

No other Canadian city has won for itself the industrial celebrity that Hamilton has attained, and it is often called the Birmingham of



GENERAL VIEW OF HAMILTON.

Canada. The total capital invested in the manufacturing industries of the city is about \$8,000,000, and the number of men employed is 14,000. It has extensive manufacturing industries, including woollen and cotton goods, sewing machines, glassware, boots and shoes, stove and implement works, machinery, water and gas pipes, furniture, saw, and planing mills, rolling mills, bolt and tack works, breweries, etc. It has a number of fine public buildings, including one of the finest insane asylums in the province, besides numerous well built schools, churches, an opera house, two hospitals and a large public library. Hamilton also has complete water works and sewer systems, both gas and electric lighting, an excellent electric railway to all parts of the town; and by both rail and water has communication and traffic with all parts of Canada and the United States. For public and high school education Hamilton holds a foremost place. It is unsurpassed as a residential city, and it contains a great number of beautiful homes.

OTTAWA.

Ottawa, situated on the river Ottawa, 100 miles above Montreal, has a population of 44,000. This city is the capital of the Dominion of Canada and the seat of the Dominion Government. Its situation on the river is very picturesque. It possesses some handsome stone buildings, including the Parliament and departmental buildings, a university, colleges, schools, and several fine churches. It has wide regular streets, is lighted by electric light and gas, has a horse and electric street car service and is a modern city in all respects. The Chaudiere Falls which here interrupt the navigation of the Ottawa river, afford water power for a host of saw mills and other manufactories. Vast quantities of lumber are made here from logs floated down from the Ottawa river and its tributaries. Its chief industries are lumber, machinery, foundries, saw and planing mills, box, pulp, woollen and other industries. It ships grain, live stock, manufactured pulp, and matches. Lumber by the millions of feet is shipped to Great Britain and the United States.

Rideau Hall, the residence of the Governor-General, is two miles distant.

LONDON.

The city of London, 76 miles west of Hamilton and 121 from Toronto, is the centre of one of the finest agricultural districts of the province. Its population is 32,000. Its chief industries are agricultural implements, breweries, car shops, chemical works, brick and tile works, and boot and shoe factories, and it ships grain, live stock and farm produce, besides the articles above named. The city is well laid out and contains some fine churches and public buildings.

HAMILTON.



SHOE FACTORY
ONTARIO ROLLING MILLS.



WESTINGHOUSE MFG. CO'S. WORKS.
HAMILTON BLAST FURNACE.

KINGSTON.

Kingston is situated on the river St. Lawrence, 172 miles west of Montreal, and about half way between that city and Toronto. Its population is nearly 20,000. Chief industries: locomotives, car and steam engine shops, quarries, agricultural implements, cotton and hosiery, pianos, organs, chemicals, etc. It has an English and a Roman Catholic cathedral, and two important colleges,—the Royal Military College and Queen's University, also an observatory, museum and library.

BRANTFORD.

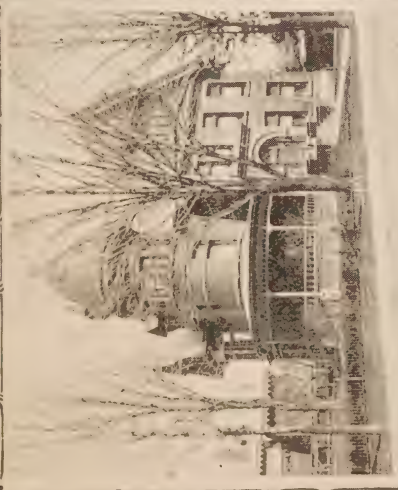
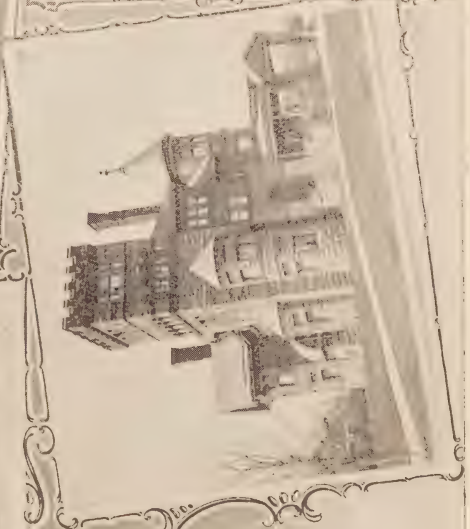
Brantford is a flourishing little city of 15,000 inhabitants, situated on the Grand river, and in communication with lake Erie through a two and one-half mile canal, to a point where the river becomes navigable to the lake. It is on a branch line of the Grand Trunk system. It contains workshops of the Grand Trunk Railway, and is a manufacturing town of some importance in the line of agricultural implements, stoves, wagons and bicycles. It is noted for its excellent schools, and also as the place where Professor Bell invented the telephone and operated his first trial line. It has an excellent electric car service, and a fine park and summer resort on the river.

Among other places of importance may be mentioned Brockville, Chatham, Galt, Guelph, Peterborough, St. Catharines, St. Thomas, Sarnia, Stratford, Windsor and Woodstock. Altogether there are 22 cities, 91 towns and 2,500 villages in the province.

ATTRACTIVE RESIDENTIAL TOWNS.

Many of the smaller towns of Ontario are particularly beautiful and attractive, and form desirable places of residence to those who prefer the repose and healthfulness of country life. As places of resort during the summer months, some of the towns on lake Ontario and lake Erie are deservedly popular, and attract many visitors from the United States, especially those who desire to exchange the heat of a southern summer for the cool breezes of the Canadian lakes. Notable among these may be mentioned Cobourg, Port Hope, Niagara Falls South, Belleville, on the beautiful Bay of Quinté, the old town of Niagara, at the mouth of the Niagara river, right across the lake from Toronto, St. Catharines, and various others. In many such towns property is unusually cheap at the present time, and comfortable residences with ample grounds may often be purchased at a very low figure. Living, too, is inexpensive.

HAMILTON.



GROUP OF HAMILTON RESIDENCES.

HOW ONTARIO IS GOVERNED.

The Dominion of Canada is a self-governing dependency of the British Empire, in which the Queen is represented by a Governor-General appointed by the Imperial authorities. The principles of parliamentary government are those of Great Britain.

The central government of the confederated provinces of the Dominion of Canada meets annually at the city of Ottawa, and is composed of a Senate and a House of Commons. The House of Commons consists of 213 members elected from the various provinces by popular vote, of which number Ontario contributes ninety two. The Dominion Government has the control of matters of a general or national character, such as trade and commerce, postal service, militia and defence, public works, fisheries, patents, copyrights, quarantine, customs, excise and finance.

The revenue of the Dominion is derived chiefly from customs duties on goods imported from other countries by merchants—a form of indirect taxation, as the people in the end, who are consumers of such goods, pay these duties to a greater or less extent. The only direct taxes on citizens of the Dominion are those levied for municipal purposes.

The Provincial Legislature.

In addition to the central government of the whole Dominion, each of the provinces has its local legislature, for the control of matters of provincial or local importance. In Ontario the executive power consists of a Lieutenant-Governor, appointed for five years by the Governor-General of the Dominion in Council, and aided by an executive council of eight members, who have seats in the Legislature, and are responsible to the popular house in accordance with the principles of English parliamentary government. The executive council of Ontario is composed as follows:

- Attorney-General (Premier).
- Secretary and Registrar.
- Treasurer.
- Commissioner of Crown Lands.
- Commissioner of Public Works.
- Minister of Agriculture.
- Minister of Education.
- Minister without portfolio.

In Ontario there is only one House, an elected assembly, consisting of ninety-four members. Every citizen who is a British subject and the full age of twenty-one years has the right to vote for members of the

HAMILTON.

ROYAL YACHT CLUB HOUSE.
GRAND TRUNK RAILWAY STATION.



BURLINGTON BEACH, LAKE ONTARIO.
VIEW FROM RESERVOIR.

Assembly. The duration of the Assembly is four years, unless sooner dissolved. Sessions are annual. Members require no property qualification, and are paid a sessional indemnity.

The subjects that fall within the legislative authority of the provincial government are very numerous and affect immediately every man, woman and child in the province. Comfort and convenience, liberty and life, all the rights of citizens with respect to property, the endless matters that daily affect a community, are under the control of the provincial authorities.

The legislative powers of the province relate to the management and sale of public lands and the timber and minerals thereon; administration of justice in the province; property, and the raising of revenue for provincial purposes; the establishment, maintenance and management of prisons, hospitals, asylums, charities, etc.; tavern licenses; local works and undertakings, and generally all matters of a merely local or private nature.

There is no tax whatever upon the people of Ontario for the maintenance of the provincial government, the revenue being derived from the sales of Crown lands, timber and minerals, from liquor licenses, and other fees, supplemented by a subsidy from the Government of the Dominion.

From the funds thus obtained the legislature annually votes the sum necessary for the administration of the public business of the province, the maintenance of asylums, hospitals and charities; makes grants to promote education and agriculture, and to defray the cost of colonization roads, public buildings and legislation.

The care of lunatics and idiots is, in Ontario, undertaken by the Provincial Government, a burden which, in most other countries, falls entirely, or mainly, on the municipalities. All these institutions are well equipped, and conducted on the most approved principles. There are six asylums for the insane in Ontario, located at Toronto, London, Kingston, Hamilton, Mimico and Brockville, besides an asylum for idiots at Orillia.

The Provincial Government also maintains a reformatory for boys at Penetanguishene, an institution for the deaf and dumb at Belleville, and one for the blind at Brantford, besides a reformatory for women and refuge for girls at Toronto. In addition to this about \$220,000 is spent annually in giving aid to hospitals and charities, and for the care and protection of neglected children.

The following table shows the receipts and expenditures of the Province for 1896:

Receipts.

Dominion subsidy	\$1,196,872 80
Interest on capital held, investments, etc.	260,554 79
Crown Lands Department Revenue ..	925,262 93
Public Institutions Revenue	146,730 16
Licenses	286,172 78
Succession Duties	165,333 40

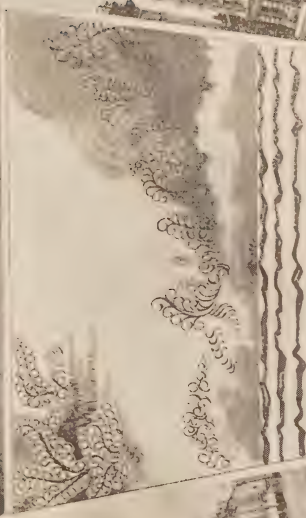
HAMILTON



POST OFFICE.



COURT HOUSE.



CITY HALL.

Receipts.—Continued.

Sale of Annuities	177,730	70
Education Department, Revenue	69,522	54
Law stamps	63,566	82
Drainage Debentures	50,511	33
Various other sources of revenue	148,363	30
	<hr/> \$3,490,671 00 <hr/>	

Expenditures.

Civil Government	\$250,032	05
Legislation	141,754	17
Administration of Justice	441,055	97
Education	702,457	01
Public Institutions Maintenance	795,567	62
Immigration	7,266	47
Agriculture	192,041	98
Hospitals and Charities	194,615	64
Repairs and Maintenance	75,227	47
Public Buildings	208,374	00
Public Works	38,077	06
Colonization Roads	102,719	24
Charges Crown Lands	120,336	86
Refunds	19,584	37
Statutes, Consolidated	5,198	23
Miscellaneous	119,965	87
	<hr/> \$3,415,274 01 <hr/>	
Drainage Debentures	13,548	72
“ “ (Tile)	4,500	00
Railway Aid Certificates	183,857	00
Annuity “	86,200	00
	<hr/> \$3,703,379 73 <hr/>	

It will be observed that in the statement of expenditures given above no charge is made for interest on provincial debt, the reason being that Ontario has no such debt, but instead a surplus from which interest is derived. In this regard the position of the province may be described as unique.

Municipal Government.

Ontario possesses a very complete system of municipal self-government. Under this system the province is divided into county, city, town, township and village municipalities. Each municipality annually elects



GLIMPSES OF COBURG, ONTARIO.

a council to transact its business. The legislative power of all councils is exercised by law when not otherwise authorized by statute. Among the subjects embraced in the jurisdiction of municipal councils are the collection of taxes for local improvements and school maintenance, gas and water companies, sewage and drainage, inspection of meat and milk, public libraries and charities, and numerous other subjects immediately connected with the security and comfort of the people.

Taxation.

Municipal taxation, especially in rural districts, is as a rule very moderate. Take as an example the county of Wellington, which is centrally situated and may be instanced as a fair average in all respects. Here we find that in 1895 the amount of taxes imposed for all purposes in the rural municipalities amounted on an average to \$4.19 per head for the 9,916 ratepayers. The number of acres assessed was 628,121, and the total taxes imposed for all purposes including real property, personal property and taxable income, amounted to \$138,084, or based on the acreage, less than twenty-two cents per acre. So that the owner of 100 acres (which may be taken to represent the average farm,) would pay only \$22 in taxes, certainly not a very heavy burden when it is remembered that this is all he would be called upon to pay in direct taxes, there being no Provincial taxation. In the same county the urban (that is town and incorporated village) taxation amounted to a trifle more, *i.e.*, \$4.68 per head of the ratepayers. It will be understood that the amount is higher in some counties than in others. In Essex, for instance, it was much higher than in Wellington, the rural taxation in that county being \$6.31 in 1896, whereas in Brant county it was \$4.28, and in Wentworth only \$3.25.



TWO COBOURG RESIDENCES.

EDUCATION IN ONTARIO.

The Ontario system of education combines the best features of the systems of Great Britain, Germany and the United States, upon which it has been founded; and for completeness and excellence is probably unexcelled in any country. The complete system includes the Kindergarten, the Public or common school, the High School and the University. The child enters the Kindergarten at perhaps four years of age, the Public School at six, and is prepared at the age of thirteen to be admitted to the High School. Four or five years in the High School enables him to matriculate in the University, where he attends four years and gains his B.A. degree.



DOORWAY, UNIVERSITY OF TORONTO.

Education in Ontario is practically free, attendance is compulsory and the schools are national instead of sectarian. No class or sect is favored. The highest distinctions of the University are most frequently gained by the sons—and daughters too—of working men.

The poorest boy or the poorest girl may reach by his or her own efforts the topmost rung of the ladder. Another feature of the system is the recognition of the principle that every pupil should not pass through the same moulding. Optional subjects may be chosen to suit the special needs of the individual in order that he may receive development along the lines for which he is by nature adapted.

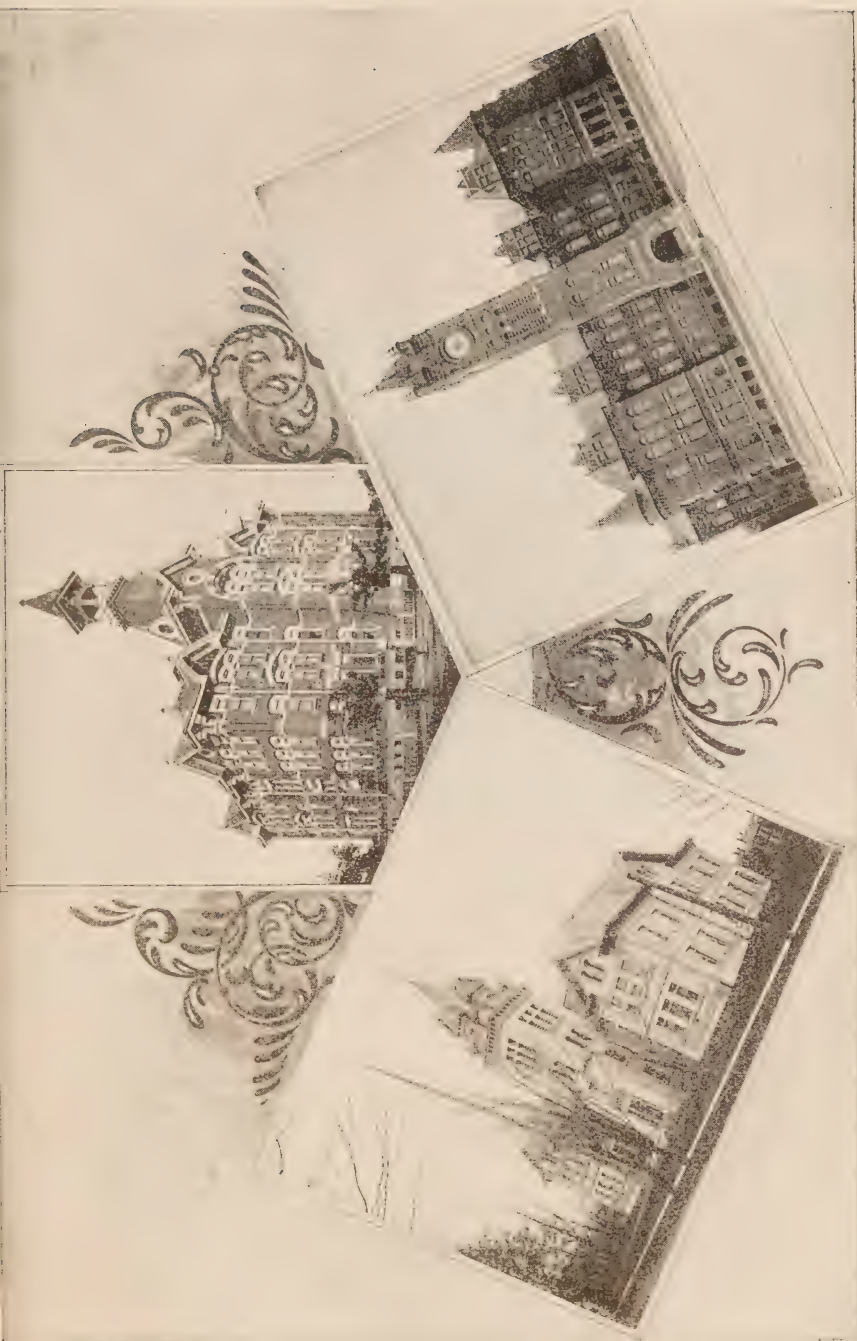
The work is presided over by a department of the Government with a minister at its head, who has a seat in the Legislature and is a member of the Cabinet.

There are in all about 9,000 teachers, male and female, in the different grades of schools, while the number of scholars is about 500,000.

Public Schools.

The Province of Ontario is divided into counties, which are subdivided into townships, and these again into school sections. In the

HAMILTON.

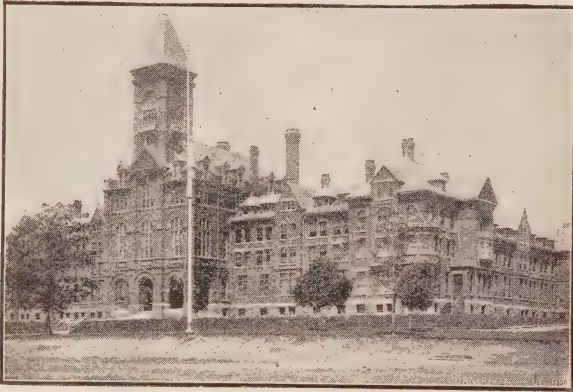


ONTARIO NORMAL COLLEGE.

QUEEN VICTORIA SCHOOL.

CENTRAL SCHOOL.

centre of each school section there is a public school, which is presided over by a board of trustees elected by the ratepayers of the section. In the well established portions of the Province these school houses are never more than three miles apart, so that a child rarely has to travel



UPPER CANADA COLLEGE, TORONTO.

more than a mile or a mile and a half to school, even in country districts. There are about 5,400 public schools in Ontario with 8,000 teachers. In the rural districts there is generally but one teacher to each school, but in towns and cities the number is in accordance with the requirements.

As the great body of the people must be the "bread-winners," and from necessity never reach the High School, the course of study in the public school is limited to a few subjects of the most practical character, the three "R's" receiving special prominence.

Though the Province of Ontario is generally Protestant, there is still a Roman Catholic minority. In order to meet the demands of this church for combined secular and religious instruction, what is known as the Separate School has been established, to which persons of that religion may send their children if they so desire. There are 250 separate schools in the province.

High Schools.

After going through the course of instruction in the Public School, as laid down by the Education Department, the pupil is ready for the High School. Every town or village of importance has one of these institutions. They form the connecting link between the common schools and the University, as the course of study culminates where that of the University begins. The High Schools are under the supervision of the Education Department the same as the Public Schools. Being situated, as stated, in every centre of population, a bright child, no matter how poor, may take advantage of the means thus afforded of

obtaining a superior education, as they are practically free, the principal charge being for school books.

After a thorough training of two or three years in the High Schools, most pupils are prepared for university matriculation. They are then ready to take up commercial pursuits, enter the teaching profession, or complete their education with a university course.



UNIVERSITY OF TORONTO.

Universities.

There are several good Universities in Ontario, the principal being the University of Toronto, a liberally endowed and well equipped institution, and the head of the educational system of the Province. This University was founded in 1827. It has an endowment of over a million dollars, and an income of \$85,000. Its students, male and female, number about 1,275. It also is undenominational.

The wishes of those who prefer to attend a denominational university are met by the several institutions of the kind which have been established, viz.: Ottawa University (Roman Catholic), Queen's University (Presbyterian), Trinity University (Episcopalian), The Western University (Episcopalian), Victoria University (Methodist), now federated with Toronto, and McMaster University (Baptist).

A number of schools and colleges are affiliated with the Provincial University, including the Ontario Agricultural College, School of Practical Science, two Medical and a Dental college, and two colleges of Music, etc.

In addition to the above, a number of private and endowed schools and colleges are to be found throughout the Province for the students of both sexes, some of which are of a denominational character. Among these the Upper Canada College is well known. Also a School of Technology and a School of Art and Design, located in Toronto; two Schools of Mining and three Schools of Dairying.

The Teaching Staff.

Ontario teachers have to qualify for their work under examination by the Education Department, and are graded according to the certificate obtained. They receive their training in the Model and Normal Schools of the Province. Every county has a Model School for the training of teachers. This is simply the largest and best equipped public school in the county set apart for the purpose. There a young teacher must acquaint himself with the methods of teaching employed, and also demonstrate his own teaching ability. When he has taken the prescribed course, he receives a third-class certificate, which entitles him to teach in the lower grade of schools for a period of three years. After that, in order to continue teaching, he must pass the University matriculation examination, and take a course in one of the Provincial Normal Schools located in the larger cities. In addition to this a head or assistant master in a High School must have a degree in Arts, take a course in the Ontario Normal College, and have a record as a successful teacher.

Government Inspection.

Each county of the Province has its School Inspector, himself a certificate holder of the highest rank, who regularly inspects the schools, presides at examinations, etc.



NORMAL SCHOOL TORONTO.



SCENE AMONG THE THOUSAND ISLANDS OF THE RIVER ST. LAWRENCE.

ATTRACTIONS FOR THE TOURIST AND SPORTSMAN IN ONTARIO.

To the tourist and sportsman Ontario can offer beauty and novelty of scenery, and an abundance of sport of all kinds. Numbers of Americans visit Ontario during the summer months, but its attractions are not as well known to the British tourist and sportsman as they deserve to be. There is no more beautiful scenery on the continent of America than that which lies between Niagara and the sea, and for grandeur of lake scenery the north shore of lake Superior is unsurpassed, while the world offers nothing more delightful and unique than a trip through the thirty thousand islands of the Georgian Bay, the northern arm of lake Huron. To these attractions may be added the beautiful Ottawa river, the majestic Nepigon, on the north shore of lake Superior, said to be the finest trout stream in the world—the far famed Lake of the Woods, and the Muskoka lakes; not to mention the thousands of lakes and rivers of the wilds of northern Ontario, even the names of which are unfamiliar, where the forests abound with game and the waters teem with all kinds of fish.

Lake Ontario, the St. Lawrence and Ottawa Rivers.

One of the favorite routes for tourists in Ontario is to start at Niagara Falls, the beauties of which are too widely known to need description, and after viewing the Falls and the river between them and lake Ontario, an attraction second only to the falls themselves, to cross lake Ontario, a distance of thirty-five miles, by one of the fine steamers that make the trip to Toronto, the capital of the province, where the traveller will be well repaid for a few days' visit.

From Toronto the route usually pursued is by steamer along the north shore of lake Ontario, passing Port Hope, Trenton, Belleville, Picton and Kingston by the way. Just below Kingston lake Ontario contracts into the funnel shaped head of the St. Lawrence river, enclosing the famous archipelago of the Thousand Islands. These lie scattered along the broad channel of the river for a distance of some fifty miles. They number in all about 1,700, varying in size, shape and appearance from a small lump of barren rock projecting from the surface of the river, to large fertile areas of land crowned with richest foliage and lofty trees. The boundary line between Canada and the United States passes along the middle of the river among the islands, which belong partly to one country and partly to the other, and the vessel touches alternately on the Canadian and the American side.

Taken as a whole the scenery of the Thousand Islands, the advantages they afford for boating, fishing and camping, and the purity of the

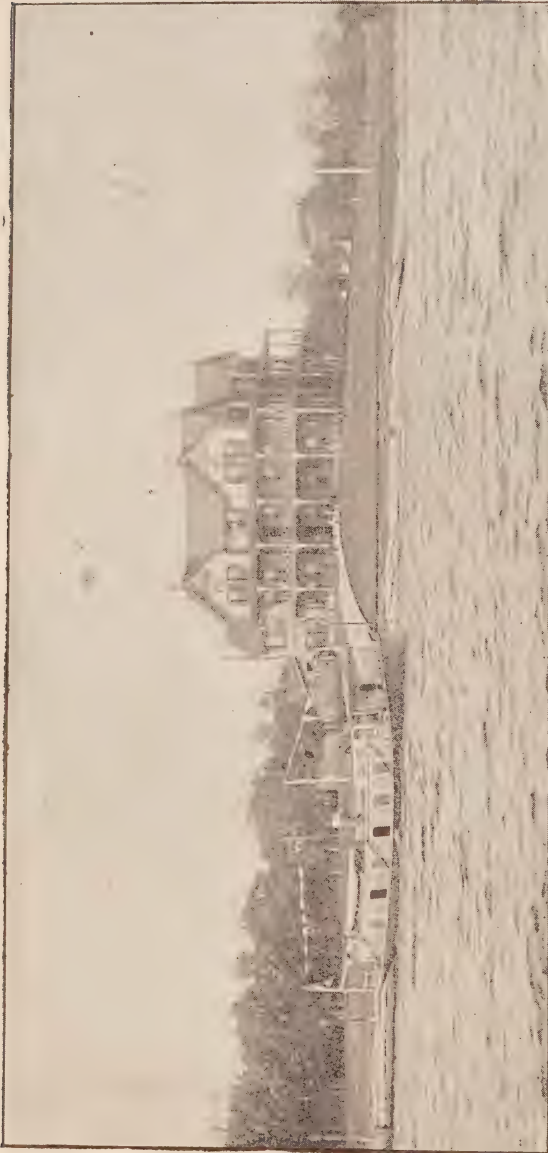


SHADOW RIVER, MUSKOKA.



BALA FALLS—LAKE MUSKOKA.

air, contribute to make the region the most unique perhaps of Canada's



MASSASSAGA PARK, BELLEVILLE.

pleasure grounds. Between the islands and channels wander in every direction, some contracted, with swift, foaming currents; others deep and shadowy, forming favorite haunts for great black bass and huge maskinonge.

The steamer trip through these islands lasts for several hours, always in daylight, and its variety of views and picturesque effects has made it famous. On many of the larger islands handsome summer residences have been built, and at different points fine hotels have been erected for the accommodation of visitors. Nearly all the great hotels and the most imposing residences are upon the American side, but to the Canadian belongs the most beautiful scenery as well as the best fishing and the most desirable sites for camp or cottage, and first-class hotel accommodation may be had at Gananoque, Brockville and Prescott. Alexandria Bay, the "Sar-

atoga of the St. Lawrence," is one of the most popular water-



RUNNING THE ST. LAWRENCE RAPIDS.



CHAUDIERE FALLS, OTTAWA.
[49]

ing places in America, and among its cottage owners and regular frequenters are many distinguished people who are attracted by the natural beauty of the region, its wholesome atmosphere, pleasant society and excellent fishing. The adjacent islands are dotted with cottages in all sort of picturesque surroundings, some showing from among the trees perched on rocky bluffs, others snugly placed on low-lying islands and nestling in beautiful coves.

Another pleasant trip in this district is between Kingston and Ottawa by the Rideau lakes. These lakes are favorite resorts of fishermen, canoeing and camping parties and for beauty of scenery are unsurpassed. The Angler's Club House at Long Island, is a most delightful spot.

After passing the city of Brockville and the town of Prescott, the vessel enters the first of a long series of Rapids of the St. Lawrence. They are Les Gallopes, Rapide du Plat and the Long Sault, representing a continuous descent of nine miles. A canal eleven miles long, with seven locks, permits the passage of the steamer on the upward trip. There are four similar canals at other points. The "shooting of the rapids," as the descent by boat is called, is a novel and exciting episode of this trip. Like the first experience of the arrowy rush of the toboggan, running the rapids produces a sensation that must be felt to be understood. Though apparently dangerous, the passage is in reality quite safe, but the suggestion of peril adds zest to the undertaking. Ahead of the vessel extends a glistening sheet of churning, foaming breakers, into which the vessel dashes. With steam shut off it is carried along at a speed of twenty miles an hour, lurching and tossing the while through the white crested waves as though in an angry sea. Then follow the Coteau, the Cedars, Split Rock and Cascade rapids, and after a twelve mile stretch of quiet water, comes the far famed Lachine, the last and greatest of them all.

It is to St. Anne just below the Lachine rapids that Moore refers in his beautiful "Canadian Boat Song:"

"Faintly as tolls the evening chime
Our voices keep tune and our oars keep time.
Soon as the woods on shore look dim,
We'll sing at St. Anne's our parting hymn.
Row, brothers, row, the stream runs fast,
The Rapids are near and the daylight's past.

Why should we yet our sail unfurl?
There is not a breath the blue wave to curl.
But, when the wind blows off the shore,
Oh! sweetly we'll rest our weary oar.
Blow, breezes, blow, the stream runs fast,
The Rapids are near and the daylight's past.



"ECHO ROCKS," LAKE JOSEPH, MUSKOKA.



Utawas' tide ! this trembling moon
 Shall see us float over thy surges soon.
 Saint of this green isle ! hear our prayers,
 Oh, grant us cool heavens and favouring airs.
 Blow, breezes, blow, the stream runs fast,
 The Rapids are near and the daylight's past.

After the passage of the rapids is made the city of Montreal is reached, which at the present time is the head of ocean navigation. It is interesting to note in this connection that from Port Arthur on the western side of lake Superior there is a continuous stretch of water communication which, with the aid of canals and locks to overcome the difference in lake levels, extends for 1,375 miles, all except forty miles of which lies within the limits of the Province of Ontario. From Montreal the distance to the Atlantic is 886 miles, making in all a total of 2,260 miles.

From Lachine, near Montreal, a pleasant trip may be made up the Ottawa river—which forms the boundary between Ontario and Quebec to the city of Ottawa. The Ottawa is a majestic stream, one of the most beautiful of the Dominion, and the sail is truly delightful. Ottawa, the capital of the Dominion is a most attractive point. The magnificent government buildings, situated upon a high bluff overlooking the river, the Chaudiere falls, the immense lumber business, etc., are all extremely interesting features, and make a day spent rambling about the capital a very pleasing experience.

From Montreal the tourist may continue his way down the St. Lawrence, which from this point flows through the Province of Quebec and view the sublime scenery of the Saguenay river, stopping off for a day or two at the quaint old French city of Quebec, which dates from the middle of the fifteenth century and is the second oldest city of North America, or staying a while among the interesting French-Canadian villages with their still primitive inhabitants.

The Muskoka Lakes.

Another attractive summer resort frequented largely by Toronto people is the Muskoka lake district, lying about one hundred miles directly north of Toronto. This beautiful district has an altitude of several hundred feet above the level of lake Huron and contains some eight hundred lakes of all shapes and sizes. These lakes are filled with islands, and indented with bold promontories, and are widely and justly renowned. The fishing they afford is excellent, including brook and lake trout, bass, maskinonge and pickerel. Grouse shooting is good, and deer are plentiful in their season. Lakes Muskoka and Joseph, the largest in the vicinity, are well supplied with summer hotels and cottages. The beauty of these lakes, the softness of the water, the healthfulness of the



PORT SANDFIELD, MUSKOKA—A POPULAR LAKE RESORT.



PORT SANDFIELD HUNT CLUB.

bracing, pine laden breezes has made them famous as a resort. Many Toronto people own their island and cottage in Muskoka, where they send their families to enjoy the benefits of an unconventional outdoor life during the summer months, and for children and young people it certainly an ideal spot.

The Islands of the Georgian Bay.

One of the most beautiful trips that Ontario affords is through the islands of the Georgian bay. It is estimated that there are about thirty thousand islands in this immense arm of lake Huron. Very few of these have yet been appropriated by summer visitors, and they still retain their original wild picturesqueness. In general character they are similar to those of the St. Lawrence river and the Muskoka lakes, but of course infinitely more numerous. The delights of a four or five days' trip through this archipelago, by one of the steamers that regularly traverse them, must be experienced to be appreciated. In autumn, when the foliage is changing color, the sight is particularly beautiful.

The Great Lake Route.

The Upper Lakes may be reached by the splendid Clyde built steamships of the Canadian Pacific Railway, embarking either at Owen Sound a port at the southern extremity of the Georgian Bay, or at Windsor opposite Detroit. These are vessels of 2,000 tons burden, with elegantly appointed and comfortable upper cabin staterooms, illuminated throughout by electric light. The route lies through lake Huron, past Great Manitoulin and other islands to St. Mary's river, by which the overflow from lake Superior is conducted into the lower lakes. At the rapids which occur at this point, named Sault Ste. Marie by the French voyageurs almost three centuries ago, magnificent locks have been constructed on both the Canadian and American sides, by means of which steamers are lifted to the level of lake Superior. To give an idea of the importance of these canals it will only be necessary to say that a greater aggregate of tonnage is locked through them during the season of navigation than passes through the Suez canal in an entire year. The towns of Sault Ste. Marie on both sides of the river, have grown up at this point where three great railways now converge, and they are rapidly becoming important commercial centres and popular summer resorts. Running the Ste. Marie rapids in an Indian canoe is an exciting adventure, indulged in by visitors.

Leaving Sault Ste. Marie for Fort William, the steamships take their course directly across the widest part of lake Superior—which is far more like the sea than a fresh water lake—and in less than twenty hours come within sight of the rocky bluff of Isle Royale, and the tremendous



SALMON-TROUT FROM RIDEAU LAKE.

purple promontory of Thunder Cape—"The Giant Asleep." This turreted headland shelters the large indentation of Thunder Bay and affords a grand harbor, which has been taken advantage of to form the principal ports upon the north shore of the lake—Port Arthur and Fort William. Here the tourist will find good hotel accommodation, and if he cares to stop over he can go by rail to Nepigon, 65 miles east, and adjacent trout rivers—to which fishing resorts this lake-tour forms an excellent means of access. From Port Arthur and Fort William the Port Arthur, Duluth & Western Railway trains run to Stanley Park, 14 miles distant, from which it is a delightful drive of four miles to Kakabeka falls, which are nearly as high as those of Niagara, and the surrounding scenery is wild and picturesque. Several steamers each week run between Fort William and Port Arthur and Duluth.

Fish and Game.

Nowhere in the world may the angler secure finer sport than in the Canadian lakes and rivers. For fine angling and big returns, as a usual thing the St. Lawrence river and lake Ontario are superb. The bass fishing of the Niagara river below the Falls is excellent. Fine maskinonge and bass fishing may be had within easy reach of Belleville in the beautiful Bay of Quinte; also throughout the Rideau chain of lakes, the Trent valley system of waters, of which Peterboro' is the central point. Peterboro' is one of the best large towns in Canada, and an excellent point from which to start upon a canoe voyage, or a jaunt into the woods. The Otonabee river, a rapid and pretty stream, runs through the town and furnishes power for many busy mills. From this point famous shooting and fishing may readily be reached, the Trent valley containing some of the best black bass and maskinonge fishing in the country. Lake Simcoe and the Severn river also afford fine fishing, and there are a number of good trout ponds within easy reach of Toronto.

Two of the most exclusive aristocratic sporting organizations in the country are located at Long Point and Pelee Island in lake Erie, the former devoted chiefly to game and the latter to fish. Besides these, numerous other sporting organizations exist in various parts of the province. The Pelee Island club is limited to twenty-five members, and the club house and its appointments are the finest that money can produce. The membership consists of wealthy Americans, and shares are quoted at \$3,000 upwards each, although probably none could be purchased for double that sum.

To the sportsman and explorer who loves to see nature in her primeval garb, the lakes, forests and streams of the great northland of Ontario will readily appeal. There he may hunt the gigantic moose and cariboo, the deer and the bear, and may fish lakes and rivers that have never been

fished. With birch bark canoe and Indian guide, he may travel the hazy courses of the lakes and streams for days and weeks at a time without meeting a white man or seeing a habitation.



AN UNFISHED TROUT STREAM.

On the Upper Ottawa river, near lake Temiscamingue, some 200 miles north of Toronto, the Canadian Pacific Railway Company has built a fine hotel for the accommodation of sportsmen. This point may readily be reached by rail from Toronto or Montreal. The Temiscamingue branch of the Canadian Pacific renders accessible a tract of country prolific in big game and fish, which until a couple of years ago, before the building of the railway, was practically reserved by natural difficulties for the Indian.

In the more accessible districts of Muskoka and Parry Sound, the Virginia or red deer abounds. The hotel accommodation is very fair, and with the assistance of a good guide, excellent sport is assured. Fine speckled trout fishing is to be had in the rivers and lakes.

In the region referred to, the Ontario Government with commendable foresight, has set apart as a game reserve a block of land containing one million one hundred thousand acres of forest land, known as Algonquin National Park. No shooting or fishing is allowed within its limits, so that it forms a refuge and breeding ground for game of all descriptions.

All of the streams emptying into lake Superior contain speckled trout in abundance. In the Nipigon river especially they are noted for their large size, six-pounders being not uncommon.



FOURTEEN POUNDS OF BLACK BASS.

Those who desire to obtain more specific information regarding the tourist routes above referred to may do so from the guide books distributed by the great railways of Canada, the Canadian Pacific and the Grand Trunk, and also from Baedeker's Canadian guide book.



ONTARIO'S NORTHLAND: RIVER SCENE.



RESIDENTIAL STREETS IN ST. CATHARINES.

CANADIAN CURRENCY.

Canada adopted the decimal system of currency in 1871, the gold standard being that of the British sovereign, \$4.86 $\frac{2}{3}$. The currency consists of paper, silver and copper money, the paper money or bills ranging from one dollar upwards.

Equivalent of British money in Canadian currency at nine and a half or par of exchange.

£.	s.	d.	\$	c.
0	0	1.....		2
0	1	0.....		24
0	4	0.....		97
0	10	0.....		2.44
1	0	0.....		4.87
10	0	0.....		48.70

To obtain an approximate idea of the relative value of English and Canadian money, four shillings may be taken as representing a dollar,



VIEW ON THE RIDEAU LAKES.

one pound as five dollars, ten pounds as fifty dollars. Thus, to find the value in pounds sterling, divide the sum in dollars by five: for instance \$5,000 divided by five makes about £1,000.

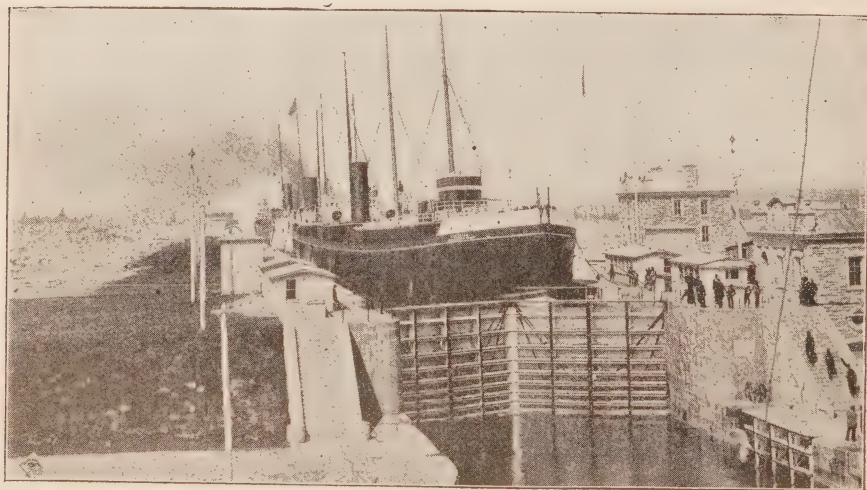
RAILWAY AND WATER COMMUNICATION FACILITIES.

Ontario has 7,000 miles of steam railways. In this regard the southern portion of the Province is particularly well supplied, being covered with a network of lines. These in connection with the lake, river and canal navigation systems afford exceptional facilities for internal communication. Very few farmers in the settled portion of Ontario are more than four miles from a railway station.

The principal railway systems are the Grand Trunk and the Canadian Pacific, two splendidly equipped roads with fine roadbeds and rolling stock. These systems are confined not only to Canada, but their ramifications extend to the United States as well.

Electric Railways in Ontario.

The growth of the electric railway in Ontario within the past few years has been rapid and continuous. In the cities and more important towns of the Province the electric car has completely taken the place of the horse car for passenger traffic. Not only so but the system is rapidly



CANADIAN LOCK, SAULT ST. MARIE.

extending itself into the rural districts, where it affords light or secondary railway facilities for the speedy transportation of passengers, farm produce, and general light freight, and bids fair in the near future to add greatly to the wealth and prosperity of the Province. Cheapness and



ON THE CANADIAN PACIFIC RAILWAY, LAKE SUPERIOR.

ease of construction are among the foremost advantages of electric transportation. The use of the public highway saves the otherwise heavy outlay for right-of-way, and its grade can for the most part be conformed to. The track and road bed, even with rails heavy enough for standard freight cars, can be laid for little more than the cost per mile of a first-class macadamized roadway. About \$10,000 per mile for road built and equipped is usually sufficient to cover the actual investment.

The number of electric railways both city and suburban in operation in Ontario is twenty-four. The total mileage covered is close upon four hundred miles. The number of motor cars equipped and in service is about four hundred and eighty: the total aggregate horse power of motors used to propel the same being over thirty-thousand horse-power.

The actual capital investment represented by these electric railways, built and equipped, is over ten millions of dollars. Of the above, the street railways in the large cities of Toronto, Hamilton, London and Ottawa, represent nearly one-half the mileage and seven-tenths of the capitalization. The remaining two hundred miles of track and three million dollars capital invested is made up mainly of light and suburban electric railways.

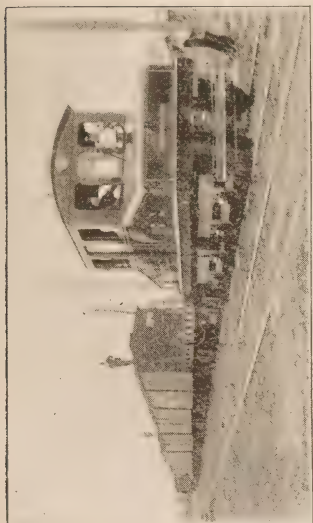
Among the suburban roads may be mentioned the Hamilton, Grimsby and Beamsville electric railway, running eastward from the city of Hamilton, through the fruit district, for a distance of twenty-three miles, to its present terminus at the town of Beamsville. A very large part of the earnings of this road is derived from the carriage of light freight, more especially fruit, to the city of Hamilton and for shipment on the steam railways to more distant points. Running from Hamilton to the north-east is the Hamilton radial electric railway, now terminating at Burlington, twelve miles from Hamilton, but to be extended to Oakville, half way to Toronto where connection will be made with the electric railway system of the latter city. This road, which at present serves the needs of a large summer population at Burlington Beach, is equipped for high speed service, with motors capable of running at forty miles an hour.

The Galt, Preston & Hespeler Railway is an excellent example of the electric railway acting as a feeder for a trunk steam road, forming as it does a freight and passenger connection for the C. P. R. with the important manufacturing towns of Galt, Preston and Hespeler.

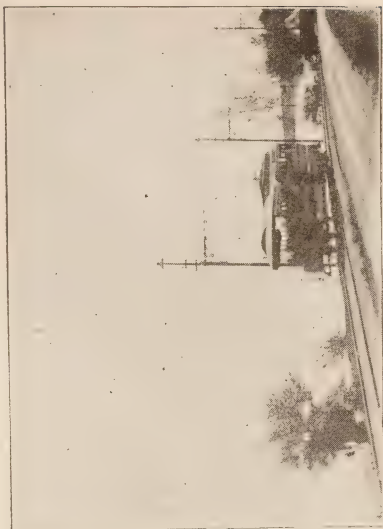
An important development of the electric railway in the East, is in the case of the Hull and Aylmer road, formerly operated by steam, as a branch of the Canadian Pacific Railway, connecting the town of Aylmer with the city of Ottawa. This railway is now equipped with electricity for the heaviest kind of freight and passenger service and seems likely to be the forerunner of many similar conversions of unproductive branches of existing steam roads.

The Metropolitan Railway, running north from the city of Toronto, through the county of York is another very important road, which when

ELECTRIC RAILWAYS IN ONTARIO.



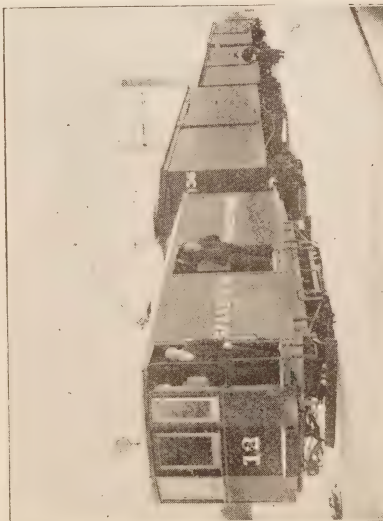
HULL ELECTRIC CO. 30 TON LOCOMOTIVE.



NIAGARA FALLS PARK RIVER RAILWAY.



NIAGARA FALLS PARK RIVER RAILWAY.



FREIGHT MOTOR CAR, GALT, PRESTON AND HESPELER STREET RAILWAY CO.

carried out to completion, will act as a feeder for freight and passenger business to the city of Toronto for the whole country to the north as far as lake Simcoe. The terminus of the road, at the present moment is at Richmond Hill, a distance of twenty miles from the northern limits of city.

One of the most important electric railways in the Province, is the Niagara Falls Park & River Railway, built to act as a link in summer excursion traffic to Niagara Falls. This road, which is double tracked throughout and operated by power of the Falls runs from Queenston, skirting the Niagara river, the Rapids and the Falls to Chippawa, a distance of fourteen miles.

Ninety per cent. of the apparatus required for the equipment of these electric railways is of Canadian manufacture. Extensive works for the manufacture of this class of appliances are located at Peterboro' and Ottawa.

Canals.

As has already been pointed out, the Great Lakes and the St. Lawrence river form the grandest system of inland water ways in the world. There is, however, a difference of level between lake Superior and the tidewaters amounting to 602 feet, giving rise to rapids between lakes Superior and Huron, to the celebrated falls of the Niagara river between lakes Erie and Ontario, and to the rapids of the St. Lawrence. To overcome these obstacles to navigation a fine series of canals has been constructed fifty-one miles in extent, at a total cost of about fifty millions of dollars, as follows: The Welland system connecting lake Erie with lake Ontario, $23\frac{3}{4}$ miles: the St. Lawrence system, twenty-four miles, and the Sault Ste. Marie canal, three-quarters of a mile. The Canadian lock at Sault Ste. Marie, between lakes Superior and Huron is one of the finest works of the kind on the continent. Electricity is used as the motive power.

By this means a continuous stretch of inland water communication is afforded through lakes Superior, Huron, St. Clair, Erie and Ontario and the river St. Lawrence to the Atlantic, a distance from Port Arthur of 2,260 statute miles. Under the present scheme of enlargement, now almost completed, these canals will accommodate vessels of 14 foot draught throughout their entire course. The principal traffic of the route consists of grain and lumber.

In addition to the above, the Ottawa and Rideau rivers canal system has for its object to connect Montreal with Kingston at the foot of lake Ontario by means of the waters of the Ottawa and Rideau rivers.



VIEWS ON THE RIDEAU LAKES.

These canals were constructed primarily with a view to the defence of the province so as to overcome the difficulty of communication by the St. Lawrence river in the event of war.

The name "Trent River Navigation System" is applied to a series of water stretches composed of a chain of lakes and rivers extending from Trenton, on the Bay of Quinté, lake Ontario, to lake Huron. At present 160 miles of direct and lateral navigation have been opened up by means of canals. The completion of this system will create a direct route from the upper lakes to the St. Lawrence for vessels of light draught.



MAP OF ONTARIO SHOWING LOCATION OF MINERAL DEPOSITS.

THE MINERALS OF ONTARIO.

It is to the development of her mineral resources more than to anything else that Ontario is looking at the present time; not that the limit of her expansion agriculturally has in any sense been reached: the desirability of some of the northern sections of Ontario as a field for settlement are now attracting more attention than ever before, while in the older settled portions steps are being taken to secure a larger share of the world's markets with good promise of success. Nevertheless future advancement is likely to depend on mining quite as much, if not more, than on agriculture.

The mineral resources of Ontario are widely spread, varied in character, and cover almost the entire list of economic minerals, with the exception of coal. Examination shows that even now, when only on the threshold of discovery, they are of almost limitless extent and value. Exploration, with the exception of a few localities, has up to the present been entirely superficial, and the prospector has a limitless field for operations before him. It is to the Huronian system of rocks that the minerals of Ontario chiefly belong, and a glance at the geological map cannot fail to impress one with their wide distribution and extent. Beds of these rocks of greater or less extent overlies the Laurentian formation all the way from the Quebec to the Manitoba boundary of the Province, passing north of lake Superior and westward along the United States boundary line. One tract alone, known as the Great Huronian Belt, extends from lake Superior eastward into Quebec Province, a distance of 700 miles. Of the mineral resources of the Hudson Bay slope, virtually nothing is known. Examination has been limited to what has been seen along the river, and it is doubtful if any white man has ever crossed it from east to west north of the 49th parallel.

Unfortunately the development of Ontario's minerals has been hindered by several adverse economic conditions, chief among them being the American import duty on the principal products of the mine, and the Canadian duty on mining machinery, which has recently been removed. These two restrictions to trade, together with the low price of iron, copper, nickel, etc., have rendered it almost impossible for Canadians to compete in the United States market. Yet, in spite of the fact that the trade is thus handicapped, the United States is still Canada's principal customer, taking about 80 per cent. of the total export product. Those well informed on the subject believe that even under present conditions, skill and capital might be made to give satisfactory results. But gold at any rate is not subject to an impost duty, nor does its commercial value fluctuate to any appreciable extent. Experts acquainted with the mining camps of the world have given it as their opinion that the gold regions of Ontario far surpass those of the Transvaal in richness and extent, and

may be worked more profitably, for nowhere in the world can mining operations be carried on at less expense than in the Ontario gold fields. It is chiefly to gold mining, therefore, that the attention of Ontario is now turned, and already enough has been done to place the successful development of that industry beyond a doubt.

The mineral products of Ontario for 1895 were as follows :

Product.	Quantity.	Value.
		\$
Building stone, rubble, etc .....	.....	438,000
Cement, natural rock	barrels 55,219	45,145
Cement, Portland	" 58,699	114,332
Lime	bushels 2,090,000	280,000
Drain tile	number 14,330,000	157,000
Common brick	" 126,245,000	705,000
Pressed brick, plain	" 15,253,370	115,695
Pressed brick, fancy	" 2,312,497	24,075
Roofing tile	" 375,000	6,200
Terra-cotta .....	.....	38,500
Sewer pipe .....	.....	133,159
Pottery .....	.....	108,000
Gypsum	tons 3,373	7,471
Calcined plaster, etc	" 444	13,095
Mica	" 25	2,900
Salt	" 51,009	188,101
Nickel	" 2,315 $\frac{3}{4}$	401,861
Copper	" 2,365 $\frac{1}{2}$	160,913
Gold	oz. 3,030	50,281
Petroleum	imperial gallons .....	.....
Illuminating oil	" 10,924,626	1,237,328
Lubricating oil	" 2,400,404	205,591
All other oils	" 7,081,717	285,308
Paraffin wax	lb. 1,964,228	86,608
Fuel product .....	.....	79,589
Natural gas	M cubic feet 3,320,000	282,986
Totals .....	.....	5,170,138

N.B.—The Ontario section of the Imperial Institute, London, England, contains a fairly comprehensive display of her minerals.

ONTARIO GOLD FIELDS.

THE RAINY RIVER COUNTRY.

The main gold bearing region of Ontario, which at the present time is attracting so much attention, is situated to the west of lake Superior, and between it and the Manitoba boundary in the southern part of what is known as the "Rainy River District." The general description of Northern Ontario given elsewhere applies to this section also. It comprises a parallelogram of country about 250 miles long by 100 or 130



GOLD-BEARING QUARTZ VEIN, RAINY RIVER DISTRICT.

miles wide, lying immediately north of the State of Minnesota, a tract at least 2,000 and probably 3,000 miles square. Here along the shores of the Lake of the Woods, Rainy lake, the Seine river, Manitou, Wabigoon and Shebandowan lakes, and elsewhere, a great number of promising gold discoveries have been made during the past four or five years, and perhaps the best of them within the past twelve months.

Although wonderful specimens of gold have been found in the vicinity of the Lake of the Woods for years past, it must be borne in mind that it is only within recent months that work has begun in earnest

in this region, or that any marked degree of confidence has been aroused regarding the future that lies before gold mining in the province. Until the fall of 1895 only one mill of ten stamps was treating gold ores in this province. It is an old truism that "far away fields look green," and while the majority of Ontarians never doubted, perhaps, the richness of the mines of California, of the Transvaal, or even of British Columbia, they have been slow to awaken to the fact that Ontario itself has an abundance of the precious metal that requires only capital, energy and skill to extract.

That progress has been slow in the past one must admit, and the reason for this is not difficult to find. Unfortunately, in the past history of gold mining in Ontario, the two factors, skill and capital, have been wanting to a large extent, and for lack of them, enterprises that might otherwise have proved remunerative to their promoters have ended in failure; the operators were inexperienced, they began work experimentally, and at the first discouragement deserted the ground. Canadians have had far more experience in lumbering than in mining, and have been better able to size up the commercial value of a timber limit than a mineral prospect. They have been slow to realize that mining is just as legitimate a field, when properly conducted, for the investment of capital, as is lumbering or agriculture or any other commercial enterprise.

But in addition to want of experience and capital, there have been other reasons which have contributed to the slow development of gold mining in the Rainy River country. These were, first, a dispute to the province's title to this region; second, the adverse opinions of experts regarding the properties first discovered, and, third, the belief that a large proportion of the ore was highly refractory.

These difficulties have now been set aside. It has been found that as a rule only a small percentage of the ore is not free milling, and even that is amendable to improved methods of treatment; experience has been gained, mines have been successfully operated, and capital is now flowing into the region. Later developments have proved that the judgment of those who condemned the country was erroneous, and the boundary dispute, through which for a period of ten years or more no one could be sure of his title to a property, has been finally set at rest in favor of Ontario. One must not therefore confound the indifference and unbelief of the past with the progress now being made. As a result of this activity there are twelve mills, aggregating 145 stamps at work, with others likely to follow in the immediate future, and gold bricks are being produced regularly by several mines.

Under the Ontario Letters Patent Act twenty-nine mining companies were incorporated during last year. Only twenty-four of such companies were incorporated during the four preceding years. Ontario's production of gold bullion has increased rapidly. During 1896 six mines alone yielded a product in gold of \$142,605, or nearly 200 per cent. more

than all the province had yielded during the year preceding, and the majority of these mines can hardly be said to have passed the development stage. The quantity of ore from which this amount was obtained is placed at 9,612 tons, showing an average value per ton of \$14.83. This value, however, while paying handsomely, hardly does justice to the district, as a large portion of the ore was from the surface and of poorer quality than will eventually be obtained. At the present rate the product of 1897 will probably reach half a million.

Already Ontario mines have won the confidence of Englishmen and Americans to a considerable extent, while it is the opinion of practical men, and their opinion is being strengthened day by day, that for richness and permanency the gold fields of Ontario are not surpassed either on this continent or elsewhere, and as evidence of the prevailing activity it may be mentioned that the receipts from sales and rentals of mineral lands in the first five months of 1897 were very nearly as large as the total receipts for the five preceding years.

THE SULTANA MINE.

It is largely through the perseverance, determination and ultimate success of one man that effort has been stimulated and confidence aroused in gold mining in the Rainy River District. The history of the "Sultana" mine on the Lake of the Woods, owned and operated by J. F. Caldwell, of Winnipeg, reads like a romance.

Some time after its discovery in 1881 an endeavor was made to float a company in London to develop it, and an expert was sent from New York to report on the property. It consisted of only twenty-seven acres, and after spending two weeks in examining it he condemned it and advised the owners to dispose of it as soon as possible as it consisted only of "a mass of lenticular deposits of segregated quartz having no depth or continuity." Geological experts also condemned the Sultana and likewise the whole district, and declared the ore to be highly refractory and incapable of reduction on a profitable commercial basis. Thus discredited generally was thrown upon the district and did much to retard the development of its mines.

In the face of these discouraging reports and ominous predictions, Mr. Caldwell purchased the property and gave evidence of his confidence in it by immediately starting its development. After considerable surface work and prospecting, operations were finally commenced in earnest in the summer of 1892. A mill was built and completed during the autumn and early winter of that year. But many difficulties had to be contended with owing to the fact that the district was entirely new and the nature of the ore quite unknown. One of the mistakes made was the adoption of the cyanide process for treating the concentrates. A cyanide plant, costing several thousand dollars, proved worthless for

extracting the gold that was left after the ore had been subjected to the free milling process. During the summer of 1896, however, a chlorination plant was installed for the purpose and has proved to be exactly what was required for the treatment of the refractory portion of the ore of this mine. The Sultana is now equipped with as perfect a plant as it is possible to procure for this class of ore, and work has been reduced to a perfect system and the machinery is running night and day, almost every particle of gold in the ore being extracted. The shaft of the vein



CHLORINATION PLANT OF SULTANA MINE.

now being worked is down some 330 feet, with 1,000 feet of drifting, and ore is being taken out from the third and fourth levels. The vein has now developed into an immense body of ore, which varies from thirty-five to fifty feet in width, and is from seventy-five or eighty per cent. free milling.

Quite recently another large vein was discovered on the property, which it is the intention to develop at an early date. The mill is a ten stamp one, but cannot handle the output, and there are now 1,500 tons of ore on the dumps. Accordingly, arrangements are in progress for

adding four batteries of five stamps each, and thus make it a mill of thirty stamps, with a capacity of treating sixty to seventy tons per day of twenty-four hours. Fifty men are employed at the mine at present, and only a small additional force would be required to supply the ore for thirty stamps. The cost of mining and milling the ore is claimed to be less than \$4 per ton, and it is estimated that over a million dollars' worth of ore is actually in sight.

The proprietor does not seem inclined to make public the exact output, but it is estimated on good authority to be not less than \$2,500 per week, which, after paying all expenses, should yield the handsome profit of \$1,000 a week on the investment.

Such is the history of Sultana mine, and it is due to its success more than to anything else, that exploration and development have been stimulated, with the result that many other valuable properties have been located, and in some instances the work has progressed so far as to place the belief that they will prove remunerative mines beyond a doubt.

ADVANTAGES OF THE DISTRICT.

Free Milling Ore.

It is doubtful whether any other gold region in the world possess the advantages of northwestern Ontario for the prosecution of the gold mining industry. First, and foremost, the ore is to a large extent "free milling," which means that it may be easily and cheaply worked with a quick return for a comparatively small outlay of capital.

The gold is usually found scattered throughout the quartz by itself, or in combination with sulphur only, the removal of which is not nearly so difficult a process as the separation of gold, silver, copper and lead, when all are found in a conglomerate mass, as is usually the case in British Columbia. The ore is free-milling to such an extent that with a stamp mill 80 or 90 per cent. of the gold may be secured by quicksilver as the pulverized ore passes from beneath the stamps, and only from 10 to 20 per cent. is found in combination with sulphur. Consequently no great smelting plant and refining works are required at a cost of \$500,000 and upwards for smelting the ore and refining the metal before the gold can be obtained, for the stamp mill takes the place of the smelter and refinery in free-milling ores. The concentration plant gathers up the ore mixed with sulphur into a convenient form for transportation to the reduction works, where the gold and sulphur are separated. It is probable that very few of such reduction works will suffice for all the gold-sulphur ores of Ontario.

The director of the Ontario Bureau of Mines, in his report for 1896, thus refers to the district :

"It is usual to speak of placer deposits as the poor man's friend for mining, as he may with a pan or a rocker wash the gold out of the gravel,

but with a free-milling ore such as is found in Ontario, yielding \$10, \$20, or \$30 per ton, and a mill of five or ten stamps, which may be set up and fully equipped at a cost of \$5,000 to \$10,000, there is ample encouragement for a venture by the mining man who knows his business and is possessed of even modest means."

So far as actual tests have gone the ore runs from \$5 to \$30 and upwards per ton, the average being about \$15. The indications are that it improves with depth, and that as development work proceeds the average richness of the ore is likely to increase. With cheap labor and cheap and plentiful fuel and water there is no reason why the ore should not be worked at an average cost of \$3 to \$5 per ton, the higher rate being for the smaller veins, which admits of even very low grade ores being worked to advantage. A ten stamp mill will easily put through twenty-five tons of ore a day, which at the modest value of \$10 per ton would mean a revenue of \$6,500 per month, while the expense of operating should not cost \$3,000 per month.

Abundance of Water.

The second great advantage of northwestern Ontario is the plentifulness of the water supply for power and other purposes. An abundant supply of water is very essential in the treatment of free-milling ores. Probably no gold field in the world is so well provided in this regard. In western Australia, for instance, the legislative assembly was asked by the government last year to grant \$12,500,000 to provide a water supply of \$5,000,000 gallons daily to the Coolgardie gold fields. The whole area of the northwestern Ontario gold fields is a network of rivers and streams with navigable lakes whose long arms stretch inland such distances as to give to comparatively small sheets of water like Lake of the Woods and Rainy lake a coast line as long as that of lake Erie or lake Ontario. Many of the mines and mining properties are right on the water's edge and may easily be reached by navigable waterways. In consequence of this fact, the need for railways and roadways is not nearly so imperative as it would otherwise be. Even the most remote part of the region is not more than forty miles from railway or steamboat. In winter a road sufficient to take in heavy machinery may be made without great difficulty to any point, and the Ontario government has shown itself liberal in granting assistance to such undertakings. In summer all parts of the district may be reached by boat and canoe.

Then, too, these chains of lakes and rivers form excellent canoe routes which greatly facilitate the work of the prospector and enable him to penetrate to any part of the district. Hitherto he has hardly ventured inland, but even then he has no huge mountains or barren wastes to contend with in his search for the precious metal.

Abundance of Timber.

The third advantage of the district is in the abundance of timber. The whole district is well wooded and there is a plentiful supply of timber for every purpose of the miner, under ground and above ground, for supports, for buildings and for fuel. There are many gold fields elsewhere to which gold hunters flock where no timber is to be had for any purpose. In western Australia wood for fuel costs \$10 per cord, whereas in Ontario it can be laid down at the mine at a cost not exceeding \$1.50 per cord.

NATURE OF THE DEPOSITS.

The gold bearing veins of the district are of two kinds, first, bedded or lenticular, and second, true fissure veins. The bedded veins occur in green chloritic and hornblendic schist, of Huronian age, and the fissure veins in masses of eruptive granite or gneiss, which have pushed their way up through the Laurentian rocks or through the Huronians themselves. In either case the best veins are usually found within a mile or two of the contact of eruptive and schistose rocks.

A SURVEY OF THE PROPERTIES.

The Rainy River gold country may conveniently be divided into four districts or fields :

The Lake of the Woods district.

The Lower Seine river district.

The Center Seine or Saw-Bill Lake district.

The Lake Manitou district.

Lake of the Woods District.

The Lake of the Woods is situated on the Manitoba boundary of Ontario. The country surrounding it is an ideal mining region. Its business center is the town of Rat Portage. This town is on the main line of the Canadian Pacific railway, and is in daily communication by rail with the east and the west. It has for years been a flourishing town independent of the mines. It has banks, hotels, postal and telegraph offices, newspapers, a steamboat service on Lake of the Woods, a reduction works for gold ores, and large flour and saw-milling industries. It is probable that a mining exchange will soon be established there. Just above the town the waters of the Lake of the Woods break through a narrow rocky outlet and fall into the Winnipeg river. At this point, by the newly completed works of the Keewatin Power Company, one of the greatest water powers of the world has been created, making the Lake of the Woods a gigantic mill pond with an area of 3,000 square miles, and affording most convenient sites for pulp mills and other manufacturing establishments.



FOLEY GOLD MINE. NORTH DRIFT OF 200-FOOT LEVEL, BONANZA SHAFT.



FOLEY GOLD MILL, 20 STAMPS.

Several large transactions have been reported from the Lake of the Woods district during the past few months. Among those we might mention the sale of the Mikado, the Cornucopia, the Triumph, the Standard, and, besides, several groups of undeveloped properties. The aggregate amount paid for these properties is about \$250,000.

This district requires no additional railway facilities for the present at least for the development of its mines. In the summer time supplies can easily be taken in by boat, often to within a few yards of the different properties. In winter, when the lake is frozen over, communication is kept up over the ice.

The principal mine of the district is the "Sultana," already described.



RAT PORTAGE, ONT.—A GOLD-MINING CENTRE.

Among the other promising properties more or less developed are the "Mikado," the "Regina," the "Golden Gate," the "Triumph," the "Cornucopia," the "Scramble," and numerous others.

The "Mikado" was discovered about a year ago, and now belongs to the "London South African Development Company" of London, England, who purchased the property on surface indications. It is said that a mill test of 140 tons of ore gave a gold brick worth \$19,000, and that the ore already mined—the result of four month's work—will pay the first cost of the property, \$25,000, and leave a balance towards the cost of the stamp mill. About two thirds of the gold contents are free-milling, the balance being carried in a variety of sulphides.

The "Regina" mine on Whitetish Bay, Lake of the Woods, is also owned by an English company. The main shaft is down 260 feet, and the second seventy feet. Good buildings have been erected, a ten stamp mill is in operation and fifty men are at work on the property. In the opinion of the management the indications are very promising.

The "Golden Gate" and the "Triumph" are now producing gold. Several other finds of very rich ore have been made in the vicinity of the "Mikado," and 1897 will probably see the development of an important mining camp at that point.

The Lower Seine District.

The Seine river empties into Rainy lake, which again connects with Rainy river and the Lake of the Woods. After ascending the river a



RAT PORTAGE REDUCTION WORKS FOR GOLD ORES.

short distance from Rainy lake the second gold field is reached, known as the Lower Seine. From the town of Rat Portage navigation is unbroken until Fort Frances is reached, at which point a fall occurs on Rainy river. A lock at that point would render it continuous to the mouth of the Seine river, a distance of 300 miles. There is no railway running into this section, nor is there at present any telegraph communication. To reach it is somewhat a tedious journey, and its rapid development is correspondingly impeded.



THE SEINE RIVER—RAINY RIVER DISTRICT.



FALLS ON THE UPPER SEINE RIVER.

On the Shoal lake expansion of the lower Seine, within a radius of about ten miles, the whole country has been laid out into mining claims, and a number of properties are being developed with satisfactory results. The chief of these is the celebrated "Foley" mine, belonging to the Ontario Gold Mines Company, whose headquarters is in Toronto. No less than twenty-nine veins have been exposed on the Foley property, and on the most promising of these a good deal of development has been done, the main shaft being down 270 feet with drifts and slopes at four levels. The ore is said to average \$20 in free-milling gold and \$5 in concentrates per ton. Forty men are employed under ground, a twenty stamp mill is in operation, and the mine is now among the regular producers of bullion.

The Upper Seine District.

Seventy or eighty miles farther up the river the Upper Seine or Saw Bill lake region is reached. The opening up of the "Saw Bill" property and its fine showing of ore has done much to attract attention to this neighborhood. A number of other rich veins have been discovered in the vicinity, and great activity is being displayed. The shaft on the Saw Bill is down 175 feet in a splendid body of ore from five to seven feet wide, and considerable drifting has also been done. The ore not only increases in quantity, but improves in quality as depth is attained. There is a ten stamp mill nearly ready for work on the property.

The Hammond Reef near Saw Bill lake is one of the most remarkable discoveries of the district, and perhaps of the world. This reef of quartziferous rock has a length of about three miles, and its greatest width is nearly five hundred feet. A mill test of five tons of ore showed \$17 per ton in free gold, besides concentrates. Development work is being actively pushed forward. It is estimated that the cost of working and treating this immense body of ore should not cost more than \$1.50 per ton.

The Manitou Country.

The Manitou region lies between Rainy lake and the Canadian Pacific Railway. It is reached from Wabigoon station on the C. P. R. via Wabigoon lake and Manitou lake and river. Here as many as 500 locations have been taken up during the past two years. This region is likely to receive a good deal of attention during the present year, and is looked upon by practical men as a most promising one.

COMMUNICATION WITH THE MINES.

At present the only means of access to the gold mining camps is by boat and canoe in summer, and in winter via the frozen lakes, and roads chopped through the bush, from the nearest point on the Canadian Pacific



THE HAMMOND REEF COMPANY'S CAMP.



THE HAMMOND REEF. CROSSCUTTING.



TAKING IN SUPPLIES TO THE SAW-BILL LAKE GOLD REGION IN WINTER.

railway. The construction of roads between the frozen water stretches is not a difficult task in winter, and it is at that season of the year that heavy machinery and supplies are taken into the mines by sleighs and teams. To promote the speedy development of the district, direct railway communication is very desirable. Such a road has already been liberally subsidized by the Provincial and Dominion Governments, and its construction will be undertaken at once. This road will branch off from the Port Arthur, Duluth and Western at a point 22 miles west of Port Arthur and terminate 165 miles distant on Rainy lake, where it will connect with the steamers plying from Rat Portage, thus opening up the country from lake Superior to the great inland water stretches.



PROSPECTOR'S CAMP—LAKE OF THE WOODS.

The road will pass along the Mattawan valley, which has a twenty mile belt of iron, a limited amount of fine farming land, and great wealth of spruce and other woods. The Seine river district with its gold belt is then entered. Along the Atik-okan magnetic iron range the road runs to the Saw Bill lake region, where a dozen mines are being actively developed. Continuing west, the survey follows the Seine river to the Shoal lake camp, which yielded \$16,000 in gold in March last. Another iron district is passed and then Rainy lake, the present terminus, is reached.

EXTENT OF EXPLORATION.

But numerous and rich as the discoveries already made undoubtedly are, the district has not been thoroughly prospected by any means. New finds are constantly being made, sometimes in quite new localities, and sometimes in regions supposed to have been well explored years ago. Some of these are of a character to stagger belief. Very recently a gold bearing quartz vein was located close to the height of land north of lake Superior, which is described as being of mountainous size. West of Lac des Mille Lacs, in the Rainy River country, as mentioned above, a gold bearing reef has been discovered nearly three miles long, and ranging from fifty to over 450 feet in width. Other finds of almost as great size are reported, in different parts of the northwestern portion of the Province, and new surprises are of almost weekly occurrence.

So far, exploration has been confined mainly to the watercourses. The fact that practically all the locations taken up hitherto are adjacent to the waterways indicates the truth of this. The greater portion of the country has not even been run over by prospectors, and cannot on account of its great extent be thoroughly explored for years. It may be asserted with truth that gold discovery in the district has only just begun.

If this is true of the comparatively small section of Northern Ontario known as the District of Rainy River, what of the mineral possibilities of the vast region hitherto untouched by prospectors? There is no reason for supposing that gold discovery will be confined to the section indicated, for the country rock, which is Huronian and Laurentian, extends over a far wider section of territory, and even where prospected, with the exception of a few localities, the exploration has been very superficial. The range of discovery is widening every year as prospectors push further afield.

OTHER GOLD REGIONS IN ONTARIO.

Elsewhere in Ontario besides the Rainy River District rich discoveries of gold have been made. The precious metal is found in the eastern part of the province, in the county of Hastings, where mines were worked a quarter of a century ago. In that district the ore is of a refractory nature, but in consequences of the discovery of a new process for successfully treating it, the mines are likely to be worked again and to far greater advantage. An English company has already commenced operations with a capital of two and a half millions of dollars, and Canadian companies have also been organized to develop the properties. A mill for treating refractory gold ores by an entirely new process is nearly completed in Hastings county, which will have a capacity of seventy-five tons per day, the equivalent of a forty stamp mill.

A prospect of the Ophir range on the north shore of Lake Huron, in eastern Algoma, discloses the fact that for twenty-five miles true fissure

quartz veins abound. These veins have been opened in many places, and are found to carry free and combined gold and to give good indications of permanency. The region is one of great promise, and although so near to the settled portion of the province has hitherto been neglected, the only mine developed to any extent being the "Ophir," which gives indications to becoming a rich property.

Wonderful reports have from time to time appeared about the gold deposits in the vicinity of Sudbury, some distance north of the Ophir range, and in the same great Huronian belt which produces ores of nickel and copper. Here on lake Wahnapiæ a large number of claims have been taken up, and on several of the properties on which development work has been done the ore is undoubtedly very rich. So little work has been done, however, that nothing very definite can be stated regarding them, except that they present excellent indications.

At Jackfish Bay, on the north shore of lake Superior, several properties of promise have been discovered. The greatest amount of work has been done on the "Empress," where a ten stamp mill is in operation, and a large extent of ore body has been demonstrated.

MINERS WANTED.

Practical and experienced miners are in demand in the Ontario gold fields at the present time. Active, strong and intelligent miners will readily obtain employment, and, if they possess the necessary qualifications, have good chances of advancement, as there are but few practical miners in Ontario.

IRON IN ONTARIO.

The ores of iron occur in Ontario in great abundance. In the eastern part of the province there are large bodies of magnetic iron, and of hematite and limonite, the red and brown iron ores. North of lake Superior, hematite exists in large quantities, and elsewhere valuable deposits of bog iron have been discovered.

Iron ore has been found in many localities in the Huronian and Laurentian formations, but the largest and most valuable deposits are undoubtedly the hematites of the Mattawan iron range, and the magnetites of the Atik-okan, to the west of lake Superior. These ranges are supposed to form a continuation of the wonderful Minnesota deposits, which now lead the world in production, but are thought to be of even greater extent in Ontario than in that State. These mountainous bodies of ore may be followed for miles, and millions of tons could be quarried at a very low cost, while the supply is simply inexhaustible.

The Mattawan range lies forty miles west of Port Arthur. The ore is a hematite of Bessemer quality, averaging from 50 to 60 per cent of metallic iron, and although not exceptionally rich, is generally free from sulphur. The ore is similar to that taken from the Tower and Ely mines in Minnesota.

About ninety miles west of Port Arthur other ranges of magnetic ore of vast extent occur along the Atik-okan river. The ore is rich and clean, of a Bessemer quality, and running from 60 to 70 per cent. metallic iron. Here shafts have been sunk and cross cuts made, as well as extensive borings with diamond drills. The ore-body is found to be from



IRON MOUNTAIN ON ATIK-OKAN RIVER, ONTARIO.

150 to 300 feet in width, rising to a height of 200 feet above the surrounding country, and extends for twenty miles from east to west. It is said to be the largest deposit yet discovered in America.

Quite recently very promising deposits of specular and hematite ores have been made on the north shore of lake Huron, in the townships of Johnson, Tarbutt and Coffin, and as far as exploration work has been carried on it looks as if valuable mines might be opened here. Their nearness to good natural harbors of deep water on the lake will bring these ores conveniently near to the best Canadian and United States markets.

Hitherto none of these deposits have been worked to any extent. Railway connection with the ranges might easily be had by building a

branch line from the Canadian Pacific or the Port Arthur, Duluth and Western Railway, thus affording an outlet to lake Superior for shipping the ore.

Extensive and valuable as the iron deposits of Ontario are, it is nevertheless a fact that at the present time they are unproductive. A number of years ago there were several producing mines in the Province, but the imposing of a duty of seventy-five cents per ton by the United States government drove the ore out of the American market, as it could no longer compete with the rich and cheaply worked deposits of northern Minnesota. As iron ore was not then being smelted in Ontario, there was no home demand, and the mines were compelled to shut down. But Ontario consumes about 300,000 tons of pig iron annually in her manufactures, and this fact, together with the offering of a bonus by the Canadian government, has recently led to the establishment of a blast furnace at Hamilton for the smelting of native ores with American coke. The furnace is of the most approved kind, and is capable of turning out 200 tons of pig iron per day. During 1896 its output was 25,000 tons, valued at \$400,000. There is little doubt that the requirements of this furnace will lead to the opening up and working of some at least of Ontario's iron deposits, and were it not for the prohibitory American tariff, the industry would soon assume large proportions.

COPPER.

On account of the low price of copper, that mineral is not now produced in Ontario, except as a by-product of the nickel industry. Valuable deposits of native copper, or copper in its pure state, exist at Mamainse on lake Superior, similar in character to the famous deposits of northern Michigan. Elsewhere in northern Ontario native copper has been found. Chalcopyrite, an ore of copper, is mined to some extent in connection with the nickel of the Sudbury region. This ore is also found on the north shore of lake Huron, where between 1849 and 1876 the mines yielded \$3,300,000 worth of the metal.

The total produce for 1895 was 2,366 tons, but the indications are that the output is likely to be largely increased as cheaper and more effective methods have lately been adopted for separating the Sudbury ores.

NICKEL.

The most extensive deposits of nickel-bearing ore in the world are found in Ontario. They are located to the north of lake Huron in the Algoma district, principally in the vicinity of the town of Sudbury on the Canadian Pacific Railway.

A few years ago experts from the United States Navy Department, who examined the deposits, estimated in their report that there were 650,000,000 tons of ore in sight, and since then other discoveries have been made within an area of about 2,000 square miles.

Something of the vastness of the deposits may be imagined when it is stated that, if the ore in sight could be raised and shipped, it would give more than three times as much freight as all the railways, not of



ORE DUMP, COPPER-NICKEL MINE NEAR SUDBURY.

Ontario alone, but of the whole of Canada, have carried since the first locomotive began to run: while the product of the Canadian Copper Company's property for one month would keep the American Nickel Works in Camden, N. J., running for sixteen months to their fullest capacity.

The mineral that carries the nickel is magnetic pyrites of iron, properly called pyrrhotite, associated with copper pyrites. The pyrrhotite

contains from $2\frac{1}{2}$ to $3\frac{1}{2}$ per cent. of nickel on an average. This ore is roasted and smelted into copper-nickel matte, the usual composition of which from average analysis is as follows: Copper, 26.91; nickel, 14.14; iron, 31.335; sulphur, 26.95, and cobalt, .935.

The importance of Ontario's nickel deposits may be judged from the fact that, until the mines in the Sudbury region were worked, the world's supply of the metal was drawn chiefly from the mines of New Caledonia, an island in the Southern Pacific, supplemented by the Gap mine in Pennsylvania, and a few isolated mines in Norway and Hungary. The extent of the Sudbury deposits is altogether greater than any of these, and New Caledonia, owned by the French Government, is virtually Ontario's only rival in nickel production.

The region in which the nickel is found is easily accessible by water or rail; in fact it was owing to the construction of the Canadian Pacific Railway, which intersects the deposit at Sudbury, that in 1883 the discovery was originally made.

The amount of fine nickel produced by the Sudbury mines in 1891 was 4,626,627 pounds; in 1892 the quantity was 6,057,482 pounds; in 1893, 3,992,982 pounds; in 1894, 4,907,430 pounds, and in 1895, 3,888,525 pounds. The total of ore mined for the six years, 1890-95, was 540,000 tons, of which was smelted and reduced to matte at the furnaces 430,539 tons. In five years this industry paid for labor the large sum of \$1,436,216, with an annual average product of nickel, copper and cobalt of about \$696,000.

All the indications point to a steady increase in the consumption of nickel and give assurance that this industry will grow to much larger proportions in Ontario. With new and improved processes the cost of the metal is continually being cheapened, and as it decreases in price new uses are found for it. But it seems probable that the greatest demand for it will be in the manufacture of nickel steel. When united with steel it forms an alloy of great strength and hardness. This alloy is used in the making of cannon, small arms, boilers and machinery, etc., where strength, malleability, capability to take a fine polish and freedom from rusting are valuable properties. One company of bicycle manufacturers in the United States used in 1895, 400,000 pounds of nickel in the form of nickel steel alloy, which is nearly one-tenth of the total produce of the Ontario mines.

Nickel steel is also being largely used by the United States Government for armour plating for battle ships, and it is thought that the experiments of the last few years in Great Britain may lead to the production of a nickel steel armour plate which will be satisfactory to that Government. If such is the case, it will without doubt give a great impetus to the Sudbury mines.

SILVER.

The silver producing district of Ontario is confined almost exclusively to a series of rocks belonging to the Cambrian system lying to the north and west of Thunder Bay or lake Superior. These rocks cover an area of over a thousand square miles and are rich in silver. The precious metal is sometimes found in its uncombined or "native" state, but generally as a sulphite, associated with ores of lead and zinc. The veins are true fissures, and vary from $2\frac{1}{2}$ to over 40 feet in width, assaying from \$10 to \$50 per ton. A few years ago a number of mines in this region were in active operation, but recently silver has depreciated in value to such an extent that the ores could no longer be profitably worked. Since 1894 the mines have been closed down, but there is now some talk of operations being resumed. A considerable portion of the silver-bearing region is yet unexplored, being under cover of drift and alluvial deposits.

CORUNDUM.

One of the most recent mineral discoveries in Ontario is that of corundum, in Hastings county. Corundum is the next hardest mineral to the diamond, and is used in the polishing, grinding and burnishing of steel implements, cutlery, etc. The deposits are said to be large and of excellent quality. Hitherto it was not known that this valuable mineral existed in Canada, and the bulk of the corundum in America has come from the mines of North Carolina.

PETROLEUM.

Ontario is the only province in the Dominion that produces petroleum. The industry is of considerable importance and gives the greatest aggregate returns of all the other minerals, the sales for a number of years amounting to over \$1,000,000. Hitherto all the petroleum produced has come from the Petrolia oil field in the county of Lambton, but recently, owing to improving prices, interest has been revived in the old Bothwell field in Kent county, where a number of new and promising wells have been located. The American crude oil produces a higher percentage of fine than the Canadian, and while Ontario may not be able to compete with the manufacturers of American illuminating oils, there is no doubt of her ability to hold the home market for machinery

oils and even to extend it outside the province, as Ontario refiners are now finding a market in the United States for this class of oils.

Natural gas has been discovered in a number of localities in Ontario but chiefly associated with petroleum. In the towns of Leamington and Kingsville, in Essex, it is used for lighting and heating purposes, and large supplies are piped thirty miles from the field to supply Windsor, Walkerville and Detroit. From Welland county it is piped into the city of Buffalo.

MINERAL FERTILIZERS.

Mineral fertilizers exist in Ontario as marls, gypsum and apatite or phosphate of lime. The Ottawa valley abounds in phosphates, properly called fluorapatites. The mineral occurs in veinstone and contains from 70 to 95 per cent. of phosphates, being as pure as exists in nature. The enormous crystals from this district are to be seen in the important museums of the world. In 1891 the output was 4,900 tons, worth \$50,800: but it has now fallen off to nothing owing to the competition of the cheaply worked Carolina and Florida deposits. These phosphates are of a lower grade, but are sometimes worked with dredges and steam shovels, while the Ontario article is difficult to mine and the deposits are somewhat remote from railroad communication. The principal market for Canadian phosphates in the past has been in Great Britain.

Gypsum is found over a large area in the counties of Brant and Haldimand, where mines have been worked for half a century.

SALT.

The salt produced in Canada is almost all obtained in Ontario. Salt beds extend over an area of 1,200 square miles in the counties of Bruce, Huron, Lambton, Essex and Kent, and the supply is sufficient to last the province for centuries. Owing to the restricted market, the limit of production is about 400,000 barrels annually.

Ontario salt is of exceptional purity, but on account of the limitations of the market the industry is not materially increasing, although attempts are now being made to develop the chemical industries dependent on salt as a raw material, such as soda, soap, hydrochloric acid and bleaching powder, and if successful a larger market will thus be available.

BARITE.

On McKellar island in lake Superior, barite is found in the largest body on the continent. The vein is sixty feet across, and in 1890 produced 1,842 tons valued at \$7,543; since then no exports have been made. This mineral is used chiefly in the manufacture of white lead.

STRUCTURAL AND OTHER MATERIALS.

In structural and decorative materials Ontario is richer than most countries both in regard to variety and quality. Sandstones, serpentines, marbles and granites abound in the northern districts, while in the south there are sandstones, limestones, pottery and pressed brick clays and the manufactures of cement and fertilizers.

Mineral pigments or natural paints are obtained in a number of localities, and some of them are very abundant. Limonite and hematite, the yellow and red ores of iron, used in the manufacture of red and yellow ochre respectively, are extensively found. Large deposits of red hematite paint are found in the counties of Lanark and Frontenac, one of which is thirty feet wide and three-quarters of a mile long; while another, which is of rich bronze hue, has been explored with a diamond drill to a depth of sixty-five feet.

Asbestos, actinolite, graphite, mica and talc are all found in commercial quantities in the eastern counties of the Province. They have not yet been worked upon a large scale, with perhaps the exception of mica. This mineral, from its possessing good insulating properties, has recently come into extensive use in connection with electrical machinery.

ONTARIO AGRICULTURE.

ITS IMPORTANCE.

In Ontario there are about twelve and a half million acres of land under cultivation, while the total amount of farm land assessed in 1895 amounted to nearly 23,000,000 acres. The number of farmers is estimated to be 175,000, the average size of their farms 130 acres, and the average value \$5,600.

The census of 1891 gave the total number of farmers and farmers' sons at 292,270, and classed 67 per cent. of the total population of 2,114,-



AN ONTARIO ROAD SCENE.

321 as rural. This indicates that a very large number of the people of Ontario are directly interested in the cultivation of the soil, and the important position assumed by the agricultural industry will at once be recognized.

Ontario is pre-eminently an agricultural country, first, because of the large number of her people engaged in agricultural pursuits: second, because of the fact that a larger amount of capital is invested in agriculture than in any other industry; and third, because most other indus-

tries depend chiefly upon the farmer for their market and for their supply of raw material. In such a country, the prosperity of the whole community is influenced to a very great extent by the condition of agriculture, so that, in this sense also, the importance of the industry cannot be overestimated.

A comparison of the agricultural interests of Ontario with the manufacturing interests of Ontario and of Canada, bears out the statement above made. For example, there is invested in Ontario in lands, buildings, implements and stock the large sum of \$1,000,000,000, in round numbers, in Ontario trades and manufactures, \$177,000,000, and in the trades and manufactures of the whole Dominion \$354,000,000. In other words, there is five and a half times as much capital invested in Ontario agriculture as there is in Ontario trades and manufactures, and three and a half times as much as in the manufactures of the whole Dominion.

In dairying alone, *i.e.*, the production of milk, butter and cheese, there is invested in Ontario at least \$175,000,000, or as much as in all the trades and manufactures in the province.

It is difficult to determine the annual value of the products of the farm in Ontario, but the following figures at current market prices are probably within the mark :

Field products	100,000,000
Live stock increase	35,000,000
Dairy produce	35,000,000
Orchard and garden products	12,000,000
Farm woodland products	20,000,000
Pasture	4,500,000
Eggs, wool, honey, etc., etc.....	3,500,000
Total	<hr/> \$200,000,000

With this contrast the value of the annual mineral production of the Dominion which is about \$20,000,000 and the fisheries production of Canada amounting to about \$19,000,000.

ONTARIO'S AGRICULTURAL PRODUCTS.

All this demonstrates that agriculture is the principle industry of the people of Ontario, and as an agricultural country the southern or older settled portion of the province is singularly favored. Its soil is rich and productive, more so perhaps than any other similar area on the north American continent. Its climate is healthful and invigorating, and admits of the growing of a great variety of products. A better sample and a larger average yield may be grown in Ontario than in the United

States. An average of Ontario cereal production compared with like averages for the principal grain growing States of the American Union gives results favorable to Ontario as follows :

ONTARIO VS. AMERICAN STATES.

This table shows the comparative yield per acre.

—	1895.	1894.	Average 1882-95.	—	1895.	1894.	Average 1882-95.
Fall Wheat.	Bu.	Bu.	Bu.	Barley.	Bu.	Bu.	Bu.
Ontario	19.0	21.2	20.1	Ontario	25.3	22.6	25.5
New York	18.1	14.8	15.1	New York	23.9	17.5	21.7
Pennsylvania	16.6	15.0	13.3	Wisconsin	29.3	28.6	24.2
Ohio	13.3	19.	13.9	Minnesota	36.0	23.5	23.9
Michigan	13.2	15.8	15.2	Iowa	28.0	15.5	22.2
Indiana	9.2	18.4	13.5	Nebraska	28.4	5.7	20.8
Illinois	11.0	18.2	13.7	California	20.3	15.2	20.4
Missouri	12.0	15.3	12.1				
Kansas	7.7	10.4	13.7				
California	13.0	11.3	12.3				
Spring Wheat.				Oats.			
Ontario	15.5	14.6	15.2	Ontario	35.7	30.0	34.3
Wisconsin	15.5	16.5	13.0	New York	31.7	22.1	27.1
Minnesota	23.0	13.5	13.6	Pennsylvania	31.7	22.3	26.3
Iowa	19.5	14.8	12.4	Ohio	31.7	30.3	29.9
Nebraska	12.0	7.0	11.4	Michigan	23.9	26.1	30.3
The Dakotas	16.7	9.4	12.7	Indiana	22.9	32.3	26.8
				Illinois	24.4	36.1	31.7
				Wisconsin	33.8	32.3	30.6
				Minnesota	39.9	28.1	31.5
				Iowa	46.2	25.6	31.8
				Missouri	27.7	23.3	24.8
				Kansas	17.9	17.9	27.1
				Nebraska	23.8	12.6	27.2

As a stock raising country also, Ontario is pre-eminent. Its favorable climatic conditions and its capacity for the production of nourishing roots and grasses especially fit it for the raising of the finest of cattle. It is because of this that Ontario has become to some extent the breeding ground of stock of a high order, to which Americans are accustomed to turn to keep up the standard of their herds and flocks.

As a fruit growing and dairying country the merits of Ontario are equally marked. The province produces a better quality of several of the most useful kinds of fruit than any other province or state. Ontario

apples sell more readily in the British market and at a higher price than those from the United States, and the same statement also applies to Ontario cheese.

It is not claimed that Ontario holds the first place in the world for agricultural resources and development, but it is claimed that it holds a foremost place.

No more conclusive proof of the pre-eminence of Ontario's agricultural products than the fact that at the World's Columbian Exposition at Chicago they outdistanced all competitors.

ONTARIO AT THE WORLD'S FAIR.

Statement of Awards in Agriculture.

	Ontario.	Other Provinces.	Total Canada.	Total U. S.
Cattle	77	27	104	306
Horses	40	6	46	257
Sheep	250	..	250	193
Swine	64	..	64	67
Poultry	501	...	501	671
<hr/>				
Total live stock	932	33	965	1,494
Grain	159	38	197	
Flour and meal	16	8	24	
Honey	17	..	17	
Fruit	39	11	50	
Cheese	260	132	392	
Butter.....	11	29	40	
<hr/>				
Total awards in agri- culture	1,434	254	1,585	

GRAIN CROPS.

WHEAT may be grown to perfection in almost any part of the province. Although it is not now raised for export, and is gradually giving place to stock raising, dairying and fruit growing, Ontario is still the principal wheat producing province of Canada.

BARLEY, rye, oats and peas are grown almost universally. Ontario barley (six rowed) is unsurpassed for color and brightness, and is greatly desired by American malsters.

In the lake Erie counties the tall southern varieties of Indian corn or maize ripen, and elsewhere in the province the corns of the northern States grow to perfection. Corn is not so extensively grown in Ontario

as in the northern central states. It is, however, largely grown for ensilage and fodder purposes, for which it constitutes an exceedingly valuable crop, producing as high an average as twenty tons per acre, and in some favored sections much more.

Ontario produces a variety of grasses and clovers and is perfectly adapted to the growth of the various root crops and garden produce, including celery, tomatoes, squash and melons.

The following figures show the yield and value of the principal cereals and other crops:

Year.	Acres.	Product.	Market value.	Yield per acre.	Market value per acre.	Average value per bu.
Fall Wheat.		bush.	\$	bush.	\$ c.	cts.
1895.....	743,199	14,155,282	9,809,610	19.0	13 20	69 3
1891.....	778,992	16,512,106	9,081,658	21.2	11 66	05.0
1893.....	913,954	17,545,248	10,509,604	19.2	11 59	59.9
1892.....	966,522	20,492,497	14,488,195	21.2	14 99	70.7
1891.....	849,956	21,872,488	20,800,736	25.7	24 47	95.1
Average of the 5 years, 1891-5.....	850,525	18,115,524	12,937,961	21.3	15 21	71.4
Spring Wheat.						
1895.....	223,957	3,472,543	2,423,835	15.5	10 82	69.8
1894.....	230,016	3,367,854	1,869,159	14.6	8 13	55.5
1893.....	356,721	4,186,063	2,486,521	11.7	6 97	59.4
1892.....	651,302	8,290,395	5,620,888	12.7	8 63	67.8
1891.....	510,634	10,711,538	9,951,019	21.0	19 49	92.9
Average of the 5 years, 1891-95.....	394,536	6,005,679	4,470,284	15.2	11 33	74.4
Barley.						
1895.....	478,046	12,090,507	4,884,565	25.3	10 23	40.4
1894.....	486,261	10,980,404	4,447,064	22.6	9 15	40.5
1893.....	467,315	9,806,088	3,932,241	21.0	8 41	40.1
1892.....	499,225	12,247,318	5,069,293	24.6	10 15	41 3
1891.....	553,166	16,141,904	7,925,675	29 2	14 33	49.1
Average of the 5 years, 1891-95.....	496,803	12,258,644	5,251,768	24 7	10 57	42.8
Oats.						
1895.....	2,373,309	84,657,566	24,646,992	35.7	10 39	29.1
Average of the 5 years, 1891-95.....	2,070,965	70,644,441	22,606,831	34.1	10 92	32.0
Peas						
1895.....	799,963	15,568,103	8,531,320	19.5	10 66	54.8
Average of the 5 years, 1891-95.....	770,179	15,315,567	8,788,181	19.9	11 41	57.4
Hay and Clover.						
1895.....	2,537,674	1,849,914	22,753,942	73	8 97	12.30
Average of the 5 years, 1891-95.....	2,539,371	3,433,261	30,431,585	1.33	11 75	8.86

Indian Corn.

Year.	Acres.	Product.	Market value.	Yield per acre	Market value per acre	Value per bu.
<i>Corn for husking:</i>		bush. in the ear.	\$	bush.	\$ c.	cts.
1895.....	302,929	24,819,899	5,609,297	81.9	18 52	22.6
1894.....	267,348	16,275,352	4,247,867	60.9	15 89	26.1
1893.....	217,294	14,072,461	3,729,335	64.8	17 16	26.5
1894.....	181,463	11,229,498	2,953,358	61.9	16 28	26.3
Average of the 4 years, 1892-95..	242,259	16,599,428	4,134,964	68.5	17 07	24.9
<i>Corn for fodder:</i>		tons (green)		tons (green)		per ton.
1895.....	149,899	1,775,654	3,551,308	11.85	23 69	\$ c.
1894.....	111,361	1,049,765	2,099,530	9.43	18 85	2 00
1893.....	95,865	1,049,524	2,099,048	10.95	21 90	2 00
1892.....	91,403	948,907	1,897,814	10.38	20 76	2 00
Average of the 4 years, 1892-95..	112,132	1,205,963	2,411,925	10.75	21 51	2 00
<i>Total corn:</i>						
Average of the 5 years, 1891-95..	331,730	.....	6,375,066	.....	19 22	.....

Root Crops.

Potatoes.		bush.	\$	bush.	\$ c.	cts.
1895.....	184,647	29,390,884	5,936,959	159.	32 15	20.2
Average of the 5 years, 1891-95....	160,084	29,162,186	6,229,785	120.	38 92	32.5
Mangel Wurtzels.						
1885.....	34,383	15,961,502	1,276,920	464.	37 14	8.
Average of the 5 years, 1891-95....	25,712	11,641,224	931,298	453.	36 22	8.
Carrots.						
1895.....	13,002	4,581,373	572,672	352.	44 04	12.5
Average of the 5 years, 1891-95....	10,655	3,782,068	472,759	355.	44 37	12.5
Turnips.						
1895.....	151,806	63,496,702	6,349,670	418.	41 83	10.
Average of the 5 years, 1891-95....	138,354	62,912,327	6,291,233	455.	45 50	10.

LIVE STOCK.

As the breeding ground for horses and live stock of the first quality, Ontario stands unrivalled. The stimulating and invigorating qualities of the climate, the remarkable freedom from disease, the nutritive qualities

of its roots and grasses, and the skill and enterprise of its breeders have all contributed to make it so. No other section of the continent of equal size can compare with Ontario in the variety of breeds, the number of pure-bred animals produced, or, taken as a whole, in the general excellence of the individual animals. In recognition of this fact, American breeders are accustomed to resort largely to Ontario in the same way as they do to Great Britain, when desirous of introducing new blood into their herds and flocks, and consequently, the United States is Ontario's best market for pure-bred horses, cattle, sheep and swine.

All the leading flocks, herds and studs of Ontario have been founded upon animals imported from Great Britain, and pedigrees trace back to British records. From that source breeding animals are still secured as occasion demands.

Cattle and live stock in Ontario enjoy immunity from disease to a large degree. Among cattle, neither pleuro-pneumonia, nor foot and mouth disease exists, and it may truthfully be said that there is no disease actively at work among horses or sheep.

Cattle.

The following breeds of cattle are well established in Ontario, namely, the Shorthorn, Galloway, Polled-Angus, Hereford, Devon, Jersey, Guernsey, Holstein and Ayrshire. In these breeds, with the exception perhaps of Ayrshires, Ontario leads all the other provinces of Canada. Shorthorns are represented in the Province by over thirty breeders of more or less prominence, and are by far the most numerous breed. It is to the Shorthorn more than to any other breed that Canada owes her reputation as a cattle breeding country.

The following awards were made in the cattle classes at the World's Columbian Exposition :

	Ontario.	All other Provinces.	Total Canada.	Total U.S.
Cattle	77	27	104	306

Sheep.

Ontario has been pronounced by breeders from England and the United States to be the ideal home of the combing wool sheep. The leading breeds are as follows: the Shropshire, the Leicester, the Lincoln, the Cotswold, the Oxford Down, the Southdown, Horned Dorsets and the Hampshire Down.

In nine classes, not including Merinos, Ontario took 241 awards with 352 animals at the World's Columbian Exposition, against 191 with 478 animals for the whole of the United States. Experts have declared that

the exhibit of sheep at that exhibition was one of the finest collections, if not the finest collection, that the world has ever seen. The remarkable result of this competition taking the population and wealth of the countries into consideration, was such as to give Ontario a world wide reputation for sheep breeding.

Horses.

Ontario is noted for the production of a fine class of horses. The leading pure breeds are as follows: Heavy horses—Clydesdales, Shire, Percheron. Light breeds—Hackney, the Americo-Arab, the Thoroughbred!



HIGH CLASS BARN AND STABLES.

Ontario took all the prizes in Thoroughbreds and Americo-Arals at the Columbian Exposition. In Hackneys, with ten entries, Ontario took twelve awards, and in Clydesdales six prizes.

Swine.

The principal breeds of swine in Ontario are as follows: The Berkshire, Yorkshire, Essex, Suffolk, Poland China, Chester White and the Tamworth. In large swine, the United States is ahead of Canada, but

the Berkshire and the Improved Yorkshire are to be found in all parts of Ontario. Ontario exhibited in four classes of swine at the Chicago World's Fair, taking 58 awards with 68 entries.

The extent and value of the live stock industry is shown by the report of the Ontario Bureau of Industries to be as follows:—

Live Stock on hand July 1, 1895.

	No.	Value.
Horses	647,696	\$40,283,754
Cattle	2,150,103	46,708,017
Sheep	2,022,735	7,808,422
Pigs	1,298,072	7,101,211
Poultry	7,752,840	2,156,623

The numbers and values of live stock sold or killed during the year ending June 30, 1895, were as follows:

	No.	Value.
Horses	40,346	\$ 2,616,391
Cattle	418,131	13,272,127
Sheep	682,315	2,484,612
Pigs	1,159,992	10,067,667
Poultry	2,392,458	860,334
Total	4,693,242	\$29,301,131

BREEDERS' ASSOCIATIONS.

The breeders of Ontario are thoroughly organized through the medium of associations, by which means the interests of every branch of the industry are carefully guarded. The Dominion Shorthorn Breeders' Association has a membership of about 400, chiefly from Ontario, an annual revenue of over \$5,000, and is self-sustaining. In its herdbook about 50,000 entries are recorded. Other cattle associations are the Dominion Ayrshire Breeders, the Holstein Fresian Association of Canada, the Canadian Jersey Breeders, and others. There is also an association known as the Dominion Cattle Breeders' Association, a central organization which looks after every interest of cattle breeding, including transportation and freight rates, exportation, quarantine, etc., and in various ways promotes the well being of the industry.

The Dominion Sheep Breeders' and the Dominion Swine Breeders' Associations perform similar functions in the interests of sheep and swine breeding. These associations do a valuable work in collecting practical information regarding the breeding and management of sheep and swine,

by means of meetings, discussions, papers, addresses, which information in the form of a report is annually printed and distributed by the Ontario Department of Agriculture.

The horse breeders of the Province are organized similarly to the cattle breeders with similar objects in view. The Canadian Horse Breeders' Association holds a horse show annually in the city of Toronto, at which prizes for all breeds and every variety of performance are given.

The work of registering pedigrees is carried on by an officer of the Government, under the direction of the various associations interested, and the standard is fully as high as that required by any other country.

FRUIT.

The ability of Ontario to produce some of the most useful varieties of fruit of the finest quality and flavor was fully demonstrated at the World's Columbian Exposition. There the province secured the greatest number of provincial and district awards, and on the score of the judges succeeded in obtaining a position fully thirty per cent. higher than any other country or State as to the appearance and quality of its fruit.

The proximity of the great lakes helps to render the climate of the southern or lake counties very temperate and suited to the growth even of tender fruits such as grapes and peaches. Grapes grow there as a field crop, producing enormous yields, and peach trees are planted out in orchards in a similar manner to apple orchards.

The Niagara Fruit District.

The Niagara District, which has been aptly termed "The Garden of Canada," comprises the counties of Lincoln and Welland, which forms the peninsula lying between lake Erie and lake Ontario and are separated from the American frontier by the Niagara river. The farms along this river between Queenston and Niagara are among the choicest in Ontario, and are nearly exclusively devoted to the raising of fruit of various kinds. From Niagara to Winona and Grimsby, a distance of about thirty-five miles, on the south shore of lake Ontario, the soil is also similarly adapted to the raising of fruit, and the immense quantities of peaches, grapes, plums and small fruits of every kind, which are shipped every season from this district, testify to the fact that this "Garden of Canada" is unrivalled for the mildness of climate and the fertility of its soil for fruit culture.

The beneficial influence of the lakes upon the climate is there exercised to a marked degree, and gives to the region an advantage even over the adjacent section of New York State in the production of fruit.



FRUIT FARMS IN THE NIAGARA FRUIT SECTION, ONTARIO.

It is in the Niagara section of Ontario that the fruit industry has achieved its greatest development. Electric cars from the city of Hamilton pass the Grimsby fruit growers' doors every hour, and telephones connect their homes and bring daily market reports. There are eight shipping stations of importance in the section, viz.: Niagara, Niagara Falls, Port Dalhousie, St. Catharines, Jordan, Beamsville, Winona and Grimsby. During 1896, 18,000 barrels of apples alone were shipped from Grimsby and 6,000 from Winona; and the total value of all fruits shipped from each of these points is upwards of \$100,000 per annum. Steps are now being taken by the Dominion Government to establish a cold storage warehouse at Grimsby, from which consignments of fruit will be made to Great Britain twice weekly. At Grimsby the fruit strip is about three miles long and one mile wide, lying under the shelter of the ridge of land known as the Niagara escarpment, and between it and the shores of lake Ontario. Unimproved portions have sold as high as \$500 per acre within the last few years. Peaches, grapes, plums and raspberries and other small fruits are grown and shipped by rail and lake. The town of Niagara lies at the junction of the Niagara river with lake Ontario and has daily steamboat communication across the lake with the city of Toronto. The estimated shipment from this port of peaches alone in 1894, a year of enormous yield, was 300,000 baskets. In the same year \$20,000 worth of raspberries were shipped from Grimsby, and about 1,200 tons of grapes, plums, peaches and small fruits from Winona.

To the extreme southwest of the province there lies a somewhat similar peninsula of land between lake Erie and lake St. Clair, consisting of the counties of Essex and Kent and including Pelee Island. Along the Detroit river and on Pelee Island grapes are grown in enormous quantities, from which considerable wine is manufactured. On Pelee Island alone there are over 350 acres of vineyard, and in 1891 over 500 tons of grapes were pressed by the Pelee Island Wine Company.

As a grape and wine producing country the possibilities of Ontario are great. As an indication of this it may be mentioned that one of the most prominent wine merchants of England, after visiting Ontario's fruit display at the World's Fair in Chicago was so impressed with what he saw there that he decided to visit and examine for himself the vineyards of the province. This he did, and afterwards sent out two of his partners from London to inspect them as well. These three gentlemen afterwards expressed it as their opinion that, with a proper system of manufacturing, Ontario should be the greatest grape and wine producing country in the world.

To the north of Pelee Island, in the neighborhood of the town of Leamington, lies a section that is rapidly becoming famous for its peaches, the local growers claiming them to be the finest in North America. The orchards are young and just coming into bearing, but already quite an



A VINEYARD, NIAGARA FRUIT SECTION.

export trade has been established with Detroit city and elsewhere.

Apples.

Ontario is celebrated for the excellent quality and flavor of its apples. Besides provincial awards, Ontario received nine district awards for apples at the Chicago World's Fair, and the opinion was there expressed that for flavor Ontario apples were superior to any others exhibited.

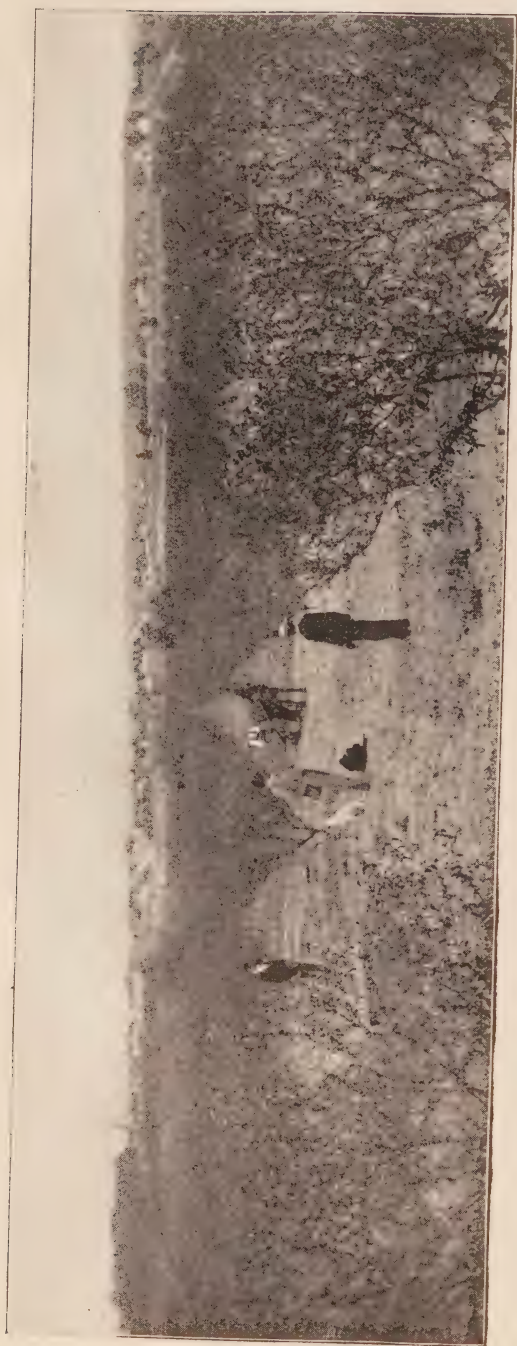
In all the lake counties, and indeed in all the counties to the west, apples grow to great perfection. In favorable years the yield is sometimes phenomenal. Such a year was 1896 when the crop was greater than ever before known in Ontario and apples became a glut in the market.

The principal apple growing district is the Huron tract bordering on lake Huron. Here the apple is king, and Huron apples bring top prices in Liverpool and London. In a favorable year this district will produce fully 500,000 barrels. Along lake Ontario also, apples of unsurpassed quality are grown, and the region is quite as favorable to their production as the Huron tract.

Other Fruits.

Pears, plums and cherries produce well in all the western counties, and in

PEACH-GROWING IN ONTARIO, LEAMINGTON IN THE DISTANCE.



the counties bordering on lake Ontario, while smaller fruits, such as strawberries, raspberries, cherries, currants and gooseberries, grow well in almost any section of the country.

Some of the finest plums in Canada are grown in the valley of the Beaver river which flows north to the Georgian bay through two ranges of hills. Here the plum-growing district extends for a distance of twenty-five miles. As yet disease is unknown, the yields are heavy and the quality excellent. Apples and some peaches also are grown. One enthusiastic fruit grower of the Beaver Valley says he would rather have a plum farm there than an orange grove in California.

Another important fruit section exists at the eastern end of lake Ontario in Prince Edward county, where for many years a great variety



PEACH ORCHARD NEAR LEAMINGTON.

of fruit has been grown. Farther east, along the St. Lawrence river, little except apples are grown, as early frosts render tender fruits precarious.

The following will give an idea of the prevailing retail market prices for the leading varieties of fruit in Ontario.

Peaches, from 50 cents (2s.) to \$1 (4s.) per peck basket.

Grapes, 20 lb. basket, wines, 20 cents (10d.), table, 25 cents, average first to last, 35 cents.

Raspberries, strawberries, currants, blackberries, etc., \$1 (4s. 2d.) per dozen quart boxes.

Gooseberries, in baskets equal to about one dozen boxes, 60 cents.

Pears, per basket of one peck, 40 cents (1s. 8d.)

Apples: Northern Spies, Baldwins, Kings, Russets, Snows, Greenings, average for season about \$1.75 per barrel.

Fruit growing in Ontario is receiving more attention at the present time than ever before, and of the possibilities of the extension of the industry there can be no doubt. Already Ontario apples are exported to Great Britain in large quantities and command the best prices. With more careful selection and better packing of the fruit, together with better transportation and storage facilities, there can be no doubt this trade might be vastly extended and made more remunerative. Storage and transportation facilities are now being provided by the government. When



GATHERING THE GRAPE CROP, ESSEX COUNTY.

they are completed, the exportation of fruit to Europe will not be confined to apples alone. There seems to be no reason why, with the necessary cold storage accommodation, Ontario's luscious peaches and other fruits of the more perishable kinds should not be laid down in the markets of Liverpool, Glasgow and London at prices that would place them within the reach of all.

With a view to the promotion of the fruit industry, fruit experiment stations have recently been established by the Ontario government in the different sections of the province. At these stations tests are made of the different varieties of fruits in order to determine the most suitable



FRUIT GROWERS RESIDENCES IN THE NIAGARA DISTRICT, ONTARIO.
[111]

for that section of country in which each station is located. These stations annually report the results of their experiments to the government, when the information is published in the form of a report and publicly distributed for the benefit of those interested.

The interests of fruit growing in the province are carefully fostered by the Ontario Fruit Growers' Association. This Association has a membership of 2,472. Its objects, like those of all similar associations in the province, are co-operative and educational. It disseminates information as to the best methods of fruit culture, and as to the proper handling, packing and marketing of fruit, and also promotes legislation in the interests of the industry. Connected with the Association are the most prominent and scientific fruit growers of the province. The painstaking work of such men has resulted in the production of varieties of at least the hardier sorts of fruit suited to almost every district in the province. In this way some districts which formerly were considered unfavorable to fruit culture have been turned into profitable fruit producing areas. Valuable work has been done by the Association in combating diseases and insect foes.

The Ontario Bureau of Industries places the number of apple trees of bearing age in 1896 at 5,913,906, while there are 3,548,053 young apple trees planted in orchards. The yield of apples in 1896 is estimated to be 55,895,755 bushels, or an average of 9.45 bushels per tree of bearing age.

The following is an estimate of other fruit-bearing trees and views in Ontario:—

Plum trees.....	700,000
Cherry trees	500,000
Pear trees	500,000
Peach trees	500,000
Grape vines	2,000,000

THE DAIRY INDUSTRY.

Cheese.

Dairying is one of the most important branches of Ontario agriculture. Ontario exports more cheese than the whole of the United States, and on the British market the quality of the product is admittedly superior. Entering late into the race when it seemed almost won by the United States, Canada has wrested from that country the first place on the market by the superiority of its product. Much of the cheese consumed by the British public is made in Ontario, although doubtless sometimes sold to the consumer as the home article. At the World's Columbian Exposition, Ontario cheese swept all before it, taking a total

of 261 awards, and in many cases securing 99 out of a possible 100 points. In this department Ontario and Quebec combined captured practically all the awards, leaving but a small portion to the rest of the American continent. No other recommendation is needed.

Ontario cheese is made under the factory or co-operative system and not in the homes of the farmers. The cheese makers managing these factories have for the most part received their training in scientific dairy schools of the province. By these methods a superior and uniform product is secured.

The development of the cheese industry in Ontario has been remarkably continuous and rapid. In 1864 the first factory was erected. Prior to that time about 3,500,000 lbs. were made annually in the farm dairies. Since then the growth has been as follows:—

1871—Amount made in factories.....	12,500,000 lbs.
1881— “ “ 	35,000,000 lbs.
1891— “ “ 	81,924,042 lbs.
1894— “ “ 	109,230,340 lbs.

The product of 1895 as compared with that of 1894 showed an increase of twelve million pounds. The number of cheese factories operated in 1895 was 1,164, or 153 in excess of the previous year.

The amount of Canadian cheese, of which probably two-thirds comes from Ontario, exported to Great Britain in 1895 was 117,230,048 lbs., and in 1896, 134,141,264 lbs.

Butter.

The butter industry is not nearly so far advanced as the cheese, chiefly owing to the lack hitherto of proper facilities for placing the product on the world's markets in prime condition. As soon as the means are found for the accomplishment of this, butter-making will at once be stimulated and receive the attention it demands. Ontario is capable of producing as fine a quality of butter as is produced anywhere, and with the proper means of manufacture, packing and transportation, there is every prospect of this product competing successfully in the British market. The number of creameries operated in 1895 was 135, the total amount of butter produced being estimated at 4,553,708 pounds at an average value of 19.07 cents per pound. Many cheese factories are now making butter during the winter season, and cheese during the summer, and the number of creameries is steadily increasing.

The control of the dairying industry is entrusted to the two Cheese and Butter Associations of Ontario, which perform a similar function for this branch of agriculture as the Fruit Growers' Association performs for



THE LAKE SHORE, PORT HOPE.
[114]

the fruit industry. Their inspectors and instructors keep a careful oversight of the cheese and butter factories, so that proper and cleanly methods of manufacture are pursued, and give by actual demonstration instruction in the best and most advanced methods. •

HONEY.

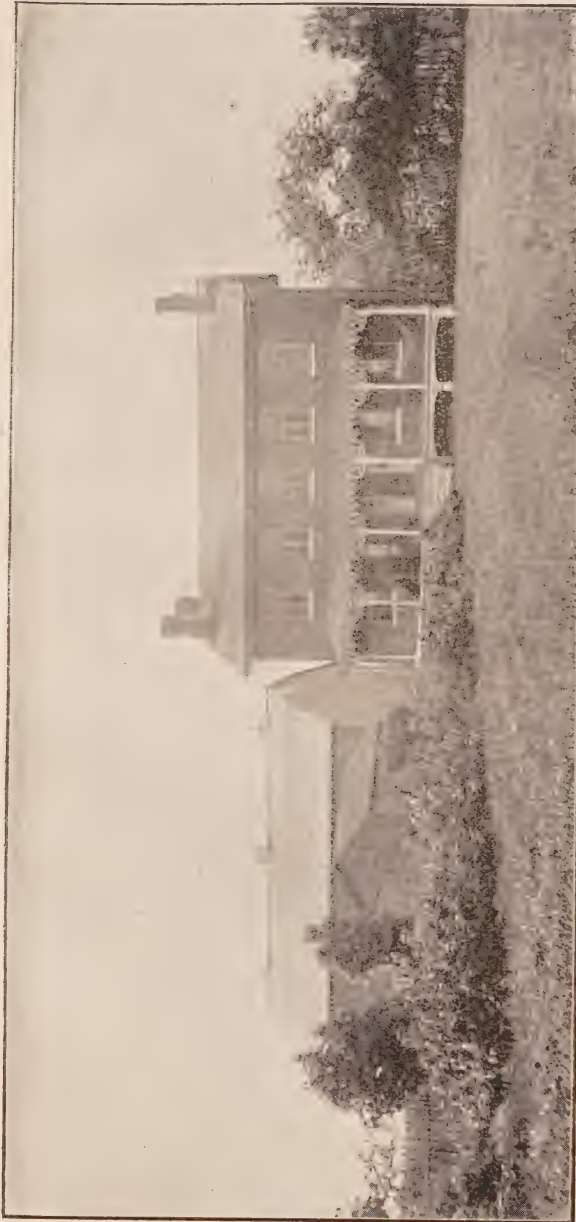
Closely allied to fruit is honey, from which Ontario produces annually 8,000,000 pounds from its 205,000 hives. Its quality is excellent, and secured at the World's Fair, Chicago, seventeen awards as against twenty-eight for the entire United States.

WHAT THE ONTARIO GOVERNMENT DOES FOR AGRICULTURE.

It may truly be said that no government in any country does more to promote the welfare of the farmer than the Government of the Province of Ontario, so far as the scope of its administration extends. It fully recognizes the fact that an industry in which a large proportion of the population are directly interested, in which a large amount of capital is invested, and which annually contributes probably as much to the wealth of the country as all other industries combined, is of paramount importance, and that upon its prosperity the prosperity of the community as a whole must necessarily depend.

To a special department of the Government known as the Department of Agriculture, with a practical farmer at its head in the person of Hon. John Dryden, the supervision of the agricultural interests of the Province are entrusted. The policy and work of the Department may be said to be entirely in the direction of raising the standard of agriculture in the Province by educative means, and in introducing and enforcing legislation that will benefit the industry. The scope of its powers does not extend to matters of international trade or to commercial tariffs or restrictions, these being under the control of the central administration of the whole Dominion. The system contemplates the elevation of the least informed farmer to the rank of the best informed, by affording him instruction and information as to the best and most approved methods of farming in all its branches. It is especially designed to bring the knowledge of the few to the possession of the many, and thus to raise the average standard of the products of the farm to the high level achieved by the more advanced agriculturist in the community.

First, each of the voluntary associations having under its supervision a special branch of agriculture,—such as the breeders, fruit and dairy associations already mentioned,—receives a grant to enable it to carry on its work. In consideration of this grant, the members of the associations, consisting of the foremost representatives of their especial branch of agri-



DWELLING HOUSE, BARN, ETC.

culture, meet at stated times, read papers, deliver addresses and engage in discussions. The information thus gathered is afterwards printed by the Government and liberally distributed among the farmers for their information in the form of reports.

In the printing and distribution of the various agricultural reports and bulletins, and in the collection and compilation of agricultural, municipal and other statistics, about \$30,000 is annually expended by the Government, besides grants to the associations themselves which aggregate another \$20,000.

In no country is agricultural effort more efficiently organized than in Ontario. The organization does not end with the associations devoted to special branches of the industry, but is brought within the reach of every farmer in the land.

A means for accomplishing this is found in the agricultural societies. Every electoral district in the Province has an agricultural society, and the territory is again subdivided between township and horticultural societies. These societies are organized under Government auspices, and play an important part in the development of agriculture. During the past twenty-four years these societies have done much to improve the agriculture of Ontario.

The Farmers' Institutes of Ontario constitute one of the best means for furnishing help and information to the rank and file of the farmers. These Institutes have been organized in almost every township. They hold at stated times a series of meetings or conferences, which are attended by delegations of speakers sent out by the Department of Agriculture, who deliver practical addresses on farming in all its branches, and give information as to the latest and most approved methods. Thus the best and most advanced farmers have been called upon to assist their fellow-workers, who may not be so well informed.

Good work has also been done in the past by the travelling or perambulating dairy schools, sent out by the Department, by which means instruction was given to farmers and their wives throughout the length and breadth of the province in modern dairy methods. These, however, have now given place to permanent dairy schools at Guelph, Strathroy and Kingston, where the student may secure a thorough course in cheese and butter-making, such as will fit him to undertake the management of cheese and butter factories.

In the interests of fruit growing, the government has likewise established twelve fruit experiment stations, the object being to test different varieties of fruit and determine their suitability for the locality represented.

Nor is the education of Ontario youths neglected who desire to follow agriculture as their vocation in life. Ontario possesses one of the finest and best equipped agricultural colleges on the American continent. The Ontario Agricultural College and Experimental Farm is an institution founded and maintained by the Provincial Government, under the direct control of the Department of Agriculture, for the express purpose of providing the sons of farmers with an education exactly suited to the requirements of their calling. Unlike American colleges of the same class, it is devoted to agriculture only. The course of training is a combination of practical with scientific work. A distinctive feature of the institution is that all students are required to perform a certain amount of manual labor on the farm while they are securing their education. Not only does it teach how to farm, but instructs the students as to the why and the wherefore of the methods he practises. The curriculum is an extensive one. It embraces not only a thorough general education, but a knowledge of all subjects having a bearing upon agriculture in its most extended sense, besides which it provides that the student may

devote himself to special branches of the work according to his natural tastes and inclinations. The complete course is three years, after which the degree of "Bachelor of the Science of Agriculture" is granted by the University of Toronto, an institution of high educational standing with which the Agricultural College is affiliated.

Associated with the work of the Experimental Department of the Ontario Agricultural College is the Experimental Union. By its means a system of co-operative experiments has been established throughout Ontario among the farmers. In 1896 the number of members of this



FARM SCENE IN ONTARIO.

Union conducting experiments in different parts of the Province amounted to 2,260, many of whom were ex-students of the College. To give an idea of the extent of the work carried on it may be stated that during the past five years forty-two thousand packages of seeds have been distributed to experimenters. Many improved varieties of crops have thus been introduced, while the educational influence the work has on those engaging in it is highly beneficial.

By such means as these the Department of Agriculture actively promotes the welfare of the industry it represents.

ONTARIO FARM METHODS.

The achievements of Ontario stock-breeders, cheese-makers and fruit-growers in the markets of the world, and the successes won in the face of keen competition at Chicago World's Fair, have amply demonstrated that there is no branch of high-class farming in which Ontario, taken as a whole, does not excel. The methods that have brought about such results will be admitted to be advanced methods, and to compare favorably with those practised elsewhere.

Old methods are now rapidly giving place to new in Ontario, but the change of system thus involved has not been a voluntary one in all cases. It has been forced upon Ontario farmers largely by the economic conditions in which they found themselves placed. After the opening up to settlement of the virgin prairies of the west, the Ontario farmer found it difficult to compete with his western brother in the production of cereal crops, to which he had been accustomed to devote chief attention. With the complete closure of the American market on which he had learned to depend, his position became a very unenviable one, and it is no wonder that agriculture has been much depressed in consequence, resulting in embarrassment to other classes as well. It thus became necessary for the Ontario farmer to avail himself of other and more distant markets, and to do this he has been compelled to direct his attention to the higher branches of agriculture, or, in other words, to turn his raw material into a finished product, instead of marketing it as such. Consequently he is now feeding his coarse grain to live stock instead of selling it to the markets of the United States, and is producing butter and cheese, meat, poultry, and fruits for the British market, and raising breeding stock for the United States.

While the change will ultimately be beneficial to Ontario agriculture by conserving the fertility of the soil and giving better returns for the labor and skill employed, it cannot be denied that the process has involved considerable hardship in the meantime. The farmer cannot launch out into new methods and change from one system to another in a day, even if he is in possession of the necessary information and skill, which is not always the case. But in this he is directly aided by the educational policy adopted by the Provincial Government, which is silently but surely effecting a constant change for the better, and is destined gradually to raise the standard of agricultural production until the industry is not merely the most important in the community but also one of the most prosperous.

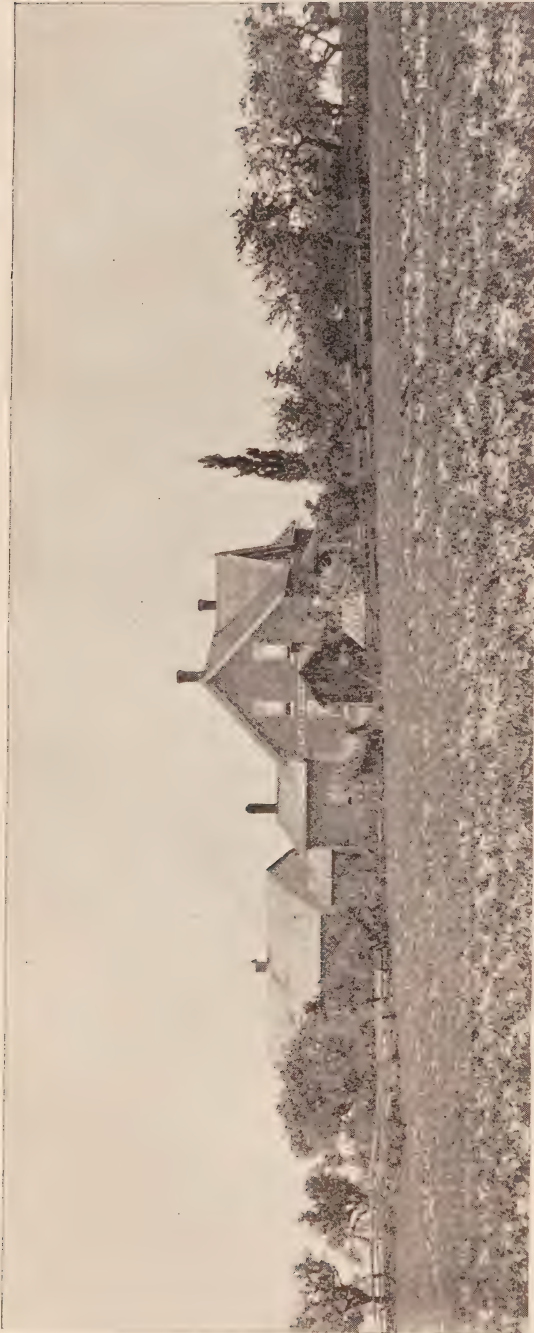
The average Ontario farmer with his hundred or hundred and fifty acres is still a general purpose farmer. The specialist is not so frequently met with, although many of the more advanced farmers make a specialty of some particular line of production, such as beef, mutton, milk, poultry, or it may be a variety of fruit or of pure bred live stock.

A TYPICAL 100-ACRE FARM AND HOMESTEAD.

Under the system of general or "mixed" farming as it is called, the average farmer with the help of his sons, if he is fortunate enough to have any, or, if not, with such hired help as he can afford to procure, will produce as much beef, mutton, pork, etc., as will supply the wants of his family, and leave a balance for the market. He will also raise enough horses to cultivate the land, and possibly one or two besides. The sale of butter, poultry, eggs, etc.—departments looked after usually by the farmer's wife—bring in enough for family groceries. All the grain and fodder required for his stock he raises on his land and sometimes markets a considerable quantity in addition.

As already indicated, however, the general trend of farming in Ontario at the present time is towards the production of live stock and live stock products, rather than the growing of grain beyond what is required for the home demand.

Much of the work on an Ontario farm is done by machinery. In sowing, mowing and reaping, the seed-drill, the mower and the self-binder are employed universally. Not uncom-



monly "sulky" plows, harrows and cultivators are employed, on which the farmer sits while he is driving just as he does on his reaping machine. The pea harvester and sulky horse rake are also used, as is various other labor saving machinery of all kinds. Steam threshing machines are universally employed, and sometimes steam engines, but more frequently wind mills, are used in pumping water, cutting food for stock, etc.

By the aid of labor saving machinery, the Ontario farmer is enabled to dispense to a considerable extent with hired help, and to conduct the operations of his farm with much less toil than would otherwise be the case. Many farmers of 100 acres employ only one laborer and it may be an extra hand when the work of harvesting presses, and in winter they themselves often attend to whatever work there is to be done.

The climate necessitates that stock should be housed and fed in winter time. The stables for cattle are usually built



* MODERN STYLE OF FARM DWELLING.

under the barn, and are known as basement stables. They are constructed of brick and stone and serve as a foundation for the barn, a spacious wooden structure in which the cereal crops are stored. This is found to be a very convenient arrangement as food and bedding can easily be supplied to the stables below.

Most farmers with any quantity of stock now have a silo in connection with the barn. This silo is an air-tight chamber, in which the corn (Indian) cut green for fodder, is stored away, after being chopped into pieces about an inch long. By this means the corn is preserved in its fresh and succulent condition, and is fed to the stock as required.

WEATHER.

The summer season is very favorable to farming operations in Ontario. As soon as the winter breaks up, the busy season for the farmer commences. The frost is usually out of the ground by the beginning of April, and by the middle of the month the land is sufficiently dry for spring plowing to commence, and as a rule seeding is pretty well through by the first week of May. After the first of June the summer is short and hot; the crops rapidly grow to maturity and have to be harvested in quick succession. First hay, then barley; closely followed by wheat and oats; and the farmer works from daylight to dark. The wheat harvest commences about the third week of July in the most advanced districts, and the bulk of the crop is harvested and in the granary by the second or third week of August.

The spring rains are usually abundant, and sometimes extend on into June. The summer months, according to the English climate, would be considered exceedingly dry, every day being one of brightness and sunshine. During the months of harvest there are sometimes not more than half a dozen showers. Of course seasons vary somewhat, but grain and fodder crops seldom suffer from an excess of moisture.

After the close of November, outside work is practically at an end, and from then on until the beginning of April the farmer has comparatively little to do, except to attend to his stock, which requires to be housed and fed during the winter season, or take his produce to market on his sleigh over the good roads which the snow provides for him. If the Ontario farmer is hard worked in summer the winter season is one of comparative leisure, and it is then that he indulges his social inclinations; but it is scarcely an advantage perhaps that the work of summer and winter are so unevenly divided.

SOCIAL CONDITION OF THE ONTARIO FARMER.

The Ontario farmer is himself a worker, and in this respect is very different from the large British land owner, who rides around merely to oversee the work of his men. Of landed gentry there are none, and the

"squire" and the manorial system are not found in Ontario. As a rule he owns his farm, and in that respect is independent and his own master.

The typical Ontario farmer is a temperate and moral man and a law abiding citizen. He is honest and upright in his dealings, although always a close bargainer, as his circumstances and training require that he should be. He is a plain man, who lives a plain, hardworking but independent life. Consequently he may not always occupy so good a social position as the British farmer, nor so good as the dignity of his calling entitles him to. This may to some extent be attributed to a system, arising out of the custom of earlier times, under which the farm hands he employs become practically members of his family for the time being, living in the same house and eating at the same table. But now-a-days on the better class of farms, the cottage system of boarding farm help is being gradually adopted.

ONTARIO'S MARKETS.

The question of increasing the scope of Canada's trade relations with the outside world is one of the most prominent in the public mind to-day, and no phase of the question is more important than that which relates to the marketing of Canada's surplus agricultural products. At the present time this branch of trade may be said to be in a state of transition in Canada, owing to the fact that it has been diverted largely from its original channels, and in consequence it is not in as satisfactory a condition as one might wish.

For some time the United States took a large portion of Ontario's surplus agricultural products. The fact that it is so readily available, naturally makes the American market much to be desired. For barley, horses, sheep, eggs and hay in particular, a ready market was found there, and even in the face of a high tariff trade in farm products reached large proportions, amounting in 1889 to \$16,262,000, as against \$19,912,000 to Great Britain. Finally, however, under the McKinley and subsequent enactments, the tariff was made prohibitory, and the farmer found himself practically without an outlet for that class of products.

About this time the position was rendered still more difficult by the exclusion of Canadian live cattle from the British market. Hitherto Ontario had shipped about 60,000 head of live cattle annually to Great Britain, and nearly one-third as many finished bullocks as were sent by the whole United States. These commanded high prices in the Liverpool market, and Canadian store steers were eagerly bought by Scottish farmers and fattened for home consumption.

In consequence of this state of affairs it became necessary to open up new branches of trade and to seek outlets elsewhere. The prominence achieved by Canadian cheese and Canadian apples in the British market, naturally turned attention in that direction, and a determined effort is now being made to share with other countries a portion of the trade with Great Britain in agricultural products.

To gain a foothold in the markets of Great Britain in the face of the competition of the world, is necessarily a slow and difficult task. In so doing Canada is being compelled not only to turn her attention to special lines of agricultural productions, necessitating to some extent a change of farming operations, but she has also to compete with countries that have already secured an entry there.

For 1895 Canada's agricultural exports to Great Britain were as follows, the bulk consisting, as far as Ontario is concerned, in animals and animal products:

Cattle	\$6,797,615
Horses	755,506
Sheep	1,253,399
Other animals	6,301
Wheat, barley, oats, flour, etc.	10,102,945
Hay	492,683
Butter	541,320
Cheese	15,086,222
Eggs	524,577
Bacon and hams	3,798,341
Meat and lard	601,662
Apples	1,659,486
	<hr/>
	\$41,620,057

With the United States for the same year the trade in the same products amounted to only \$7,423,170, or in other words, Great Britain in 1895 took 77 per cent. as compared with 17.20 per cent. on the part of the United States.

From the measure of success achieved in the British market, the outlook is certainly encouraging, although Canada's share of the trade compared with the quantity of food products annually imported by Great Britain is comparatively small, and leaves room for great expansion.

In 1896 the value of Canadian bacon and ham sent to England amounted to nearly \$6,000,000, a large increase, as will be observed, over the preceding year. As indicating the room for the growth of this branch of trade alone, it may be stated that Great Britain imported \$50,000,000 worth of bacon and ham in the year mentioned. A few years ago, however, Canadian bacon and ham were unknown in the British market.



ONTARIO FARM DWELLINGS.

But before Canada can succeed in capturing any large share of British trade, it is absolutely necessary that proper provision should be made for placing her products on that market in as good a condition as when they leave the producer's hands. Hitherto this has not been the case. For lack of proper cold storage facilities Canadian products have greatly deteriorated in transit. To remedy this defect the Canadian Government has inaugurated a complete system of cold storage and rapid transportation, extending from the producer in Canada to the consumer in Great Britain. These arrangements comprise inland storage warehouses at the points of shipment, cold storage on the railways, cold storage at ports where exported, cold storage on the steamships and cold storage at the points of delivery on the other side. Arrangements were made for improved mechanical refrigeration on board not fewer than seventeen ocean steamships running between Montreal and British ports. These will provide safe and reasonably cheap carriage for all shipments during the present season. On the railways refrigerator cars fully iced will be run regularly. Each car will take up consignments of butter and other products requiring cold storage at every station along the various lines of the Canadian Pacific, Grand Trunk, Ottawa & Parry Sound Railways. Inspecting officers have been appointed to see that all these warehouses, steamships and railways are fully up to the requirements of the Government. This is likely to be followed by a large expansion of trade with Britain in such perishable commodities as meat, poultry, eggs, butter, bacon and fruit.

It is part of the policy of the Liberal Government recently elected to power in Canada to facilitate by every available means the trade of that country. While cultivating the British market by making arrangements for the proper storage and transportation of food products, the American market, with which at one time so large a trade existed, will not be overlooked. The efforts of the Dominion Government have already been successful in securing the removal of the ninety days' quarantine which for some time hampered the trade in pure bred stock between Canada and the United States, and this industry is bound to receive a new impetus in consequence. They will continue their efforts to promote trade still further in this and in other directions.



RESIDENTIAL STREETS, BELLEVILLE, ONTARIO.

ONTARIO AS A FIELD FOR THE FARMER EMIGRANT.

To small farmers in Great Britain who desire to change their surroundings, Ontario should present many attractions, especially if he be a man with several sons to whose future he is looking. That agriculture has been and still is somewhat depressed in Ontario no one will gainsay—it is depressed everywhere. It is not claimed therefore that by engaging in farming in Ontario he will at once rise to a position of affluence. It is to the future rather than to the present that such a man must look, and already there are signs of improvement. Thanks largely to the Ontario Government and the efforts put forth by the Department of Agriculture, the farmers are becoming informed as to better and more remunerative methods, and there can be no doubt that the standard of agricultural production throughout the province is being gradually raised. This process continued from year to year is bound to place the industry on better footing.

Then, as regards markets, we have seen that, although past conditions have been somewhat unfavorable to the Canadian farmer, new possibilities are opening up in this direction, as soon as he can so adapt himself to their requirements as to take advantage of them. If one door has been closed another is being opened, with the chances in favor of the change being ultimately to his advantage.

It is worth something to live in a country where so much fostering care is bestowed by the Government on the great industry of agriculture. It is worth something to live in a land like Ontario, with its many resources, its future capabilities, its fine climate, and its advanced and progressive institutions.

The British tenant farmer, if he be a man with a little capital, especially if his inclinations lead him towards dairying and the growing of stock, certainly should succeed in Ontario. It would of course be necessary for him to learn to adapt himself to the new circumstances by which he would find himself surrounded. The difference of climate would necessitate some modifications of the methods practised in Great Britain. He must be willing to learn and to practise the most advanced methods as applied to Canadian agriculture, and not allow preconceived ideas to prejudice him.

There can be no doubt that such a one would find the older settled portions of Ontario far more congenial than the remote and sparsely peopled districts of the far west. In Ontario he may secure a good farm at a very low price, situated in the midst of well established social and political institutions, and enjoy all the advantages of advanced civilization. He need not deprive himself of any of the comforts and luxuries that he has been accustomed to, or of the class of society that would be congenial to him, especially if he locates in the neighborhood of some of Ontario's pretty and attractive country towns.



AN ONTARIO COUNTRY ROAD



TYPICAL FARM BUILDINGS—OLD STYLE.

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A mistaken idea of the Canadian climate has no doubt resulted in the country being regarded with disfavor by some, but at least so far as the southern portion of Ontario is concerned, there need be no apprehension on that score. One of the most convincing proofs of this is found in the fact that the country referred to produces the luscious peach in such abundance and the juicy grape as an open field crop. No climate perhaps is perfect, and while that of Ontario doubtless has its drawbacks, it is pronounced by those who have experienced both, taken the whole year round, to be decidedly preferable to that of the British Isles. It is certainly healthful and particularly well adapted to British manhood and womanhood.

As to the amount of capital required, farms may be had of 100 acres, ranging in value from \$4,000 to \$10,000, according to the soil, situation, location, buildings and improvements, while another \$2,000 or \$3,000 would be required for live stock, implements, etc.

At the present time good improved farms, with buildings, outhouses, etc., complete, may be purchased at a very low figure. Quite a number of Ontario farmers, rather than adapt themselves to the new conditions brought about by the partial revolution in farm methods which we have indicated, left Ontario for Manitoba and the North-West, or the Northwestern States, which to the grower of grain offer decided inducements—a move was not always to their advantage as many have discovered. A number of farms having been thrown upon the market the result has been a depreciation in the value of farm lands; and thus it comes about that there are a good many farms which may be purchased cheaply at the present time in Ontario.

To any one in search of a good locality for a home where nature has bestowed a rich soil, salubrious climate and delightful scenery, no other portion of Canada can offer greater attractions than the Niagara Fruit District.

The following list of fruit and other farms for sale in that region will give some idea of the properties and the terms upon which they may be obtained:

To find the price in pounds of any farm, divide the price given in dollars by five. For instance \$5,000 divided by five make about £1,000.

SAMPLES OF FARMS FOR SALE.

COUNTY OF LINCOLN.

Gentleman's Residence, Niagara Fruit District: Three acres, fine sandy soil, all in bearing fruit. Large substantial solid brick residence, on stone foundation, containing 11 rooms and bath room. All interior wood work throughout is hardwood and well finished in oil. Every facility for electric lighting. Telephone connection. Cellar under whole house. Furnace, etc. Frame driving barn on stone foundation, cellar under whole. There are 4 stalls, harness room, granary, feed lots, carriage and fruit packing room, frame shed attached, fowl house, ice house, etc.,

SAMPLES OF FARMS FOR SALE IN ONTARIO.



150 acres, County of Wellington, 130 acres cleared, no stones, 20 acres hardwood bush; soil, best clay loam; gently rolling, with fall enough to run water; fence with cedar rail and wire; watered by three wells and one never failing spring; three acres of choice bearing fruit; two-story frame house, with nine rooms well finished; besides a kitchen attached, 18x24; cellar under half the house; frame woodshed, 18x34; large cistern; frame bank barn, 64x66, with stone stables underneath for thirteen horses and thirty three head of cattle; frame driving shed, 24x30; frame sheep house, 18x24; root house under barn, 14x50. This farm adjoins one of the best market towns on the G. T. R., and only a few rods from school, churches and post office. Price, \$10,000 (£2,000); payable \$4,000 cash, balance to suit the purchaser.



200 acres, County of Perth; 175 acres cleared; no stones on farm; fifteen acres of hardwood bush, balance slash; soil, best clay loam; farm lies well, has a magnificent appearance, just sufficient fall; good rail and wire fences and the fields all 17½ acres each; watered by two wells and a valuable spring creek; good orchard, all bearing; first-class white brick residence, with eight rooms, besides a brick kitchen attached, 16x20; cellar, 26x36; brick woodshed, 16x20; soft water cistern at kitchen; a fine bank barn, 45x104 with a straw shed attached, 36x50; stabling under barn for forty head of cattle and other animals; horse stable for thirteen horses; driving shed, 30x40; pig pen, 12x20; a sheep house and other buildings; a large windmill is used for pumping water and cutting fodder for stock. This is a first-class grain and stock farm in every respect and only 1½ miles from a village and close to school, post office and churches, and convenient to a good market town on a railway. Price, \$11,000 (£2,200), payable \$4,000 cash, balance to suit the purchaser.

all in the best of repair. Situated on Queenston and Grimsby stone road, about $\frac{3}{4}$ of a mile east of Grimsby village, and about $1\frac{1}{2}$ west of the well-known Grimsby Park, where there is steamboat connection during summer months with Toronto. The new Hamilton, Grimsby & Beamsville electric railway cars, running between Hamilton and Beamsville, pass the front of this property every hour. Price, \$10,000. Terms to suit purchaser.

26 acres, township of Grimsby.—A splendid fruit farm. Soil, a rich sandy loam with deep subsoil. Fruits consist of peach, pear, plum, quince, cherry and large number of grapes; the apple orchard is one of the finest in the district. Solid red brick residence, concrete cellars with laundry and dairy; furnace cost \$300. Lawn in front. Drive house, on stone foundation, 36 x 40; new frame shed, 24 x 36; workshop, 18 x 36. Situated on the Queenston and Grimsby gravel road, $1\frac{3}{4}$ miles east of village of Grimsby and one mile from Grimsby Park. Price, \$14,000.

110 $\frac{1}{2}$ acres, rich sandy and clay loam, township of North Grimsby.—95 cleared; about 67 acres in fruit, 12,500 plums, 1,600 cherry, 1,803 pear, 200 apple, 260 peach, 6 000 vines, 4,800 black and red currants; tile drained. Large frame house, 13 rooms, cellars and closets, etc.; small brick house and frame house; frame barn, stone stables, sheds, fowl house, drive house, etc.; artesian well, windmill; telephone connection. Situated at base of mountain, $3\frac{1}{2}$ miles west of Grimsby; electric cars pass front of farm; on gravel road. Price, \$18,000.

50 acres fruit land, township of North Grimsby.—40 acres under cultivation, planted out with apple, peach, pear, plums grapes and berries, in full bearing; tile drainage. Fenced with posts and wire. Small frame house 28 x 32, with kitchen 12 x 18 attached, on stone foundation, contains 6 rooms, cellar 18 x 28, pantry 4 x 8. Frame barn 21 x 40, with stables. Situated at base of mountain $2\frac{1}{4}$ miles from Winona R. R. station, and about $\frac{1}{2}$ a mile from electric cars. Price, \$10,000. Only \$2,000 cash, balance on mortgage.

100 acres of sandy and clay loam, township of Niagara.—About 25 acres or more are planted out with peaches, plums, pears, cherries, quinces, and grapes in bearing. Brick dwelling house 40 x 30, with kitchen addition 20 x 30, 10 rooms besides kitchen; good cellar 20 x 30, well drained. Good spring well. Frame barn 36 x 30, frame shed 60 x 33, pig pen. Situated on the Niagara river, 2 miles from Queenston, 4 miles from Niagara, and 15 miles from St. Catharines. Price, \$10,500.

120 acres, township of Niagara, on the Niagara River road.—Large frame dwellings and frame barns; 17 acres grapes, 20 acres peaches, 15 acres apples. Beautiful location. Price, \$12,000.

300 acres in the Military Reserve, township of Niagara.—9 miles from St. Catharines, $3\frac{1}{2}$ miles from Niagara, 2 miles from St. David's and Virgil. All fruit land; spring stream running through the farm. Fine large stone residence (cost \$5,000), 2 frame tenant houses, frame barns, stables, carriage house, fruit house, from 5,000 to 6,000 fruit trees, and about 3,000 grape vines. Price, \$30,000.

23 acres, township of Grantham.—3 miles from St. Catharines. Soil, rich sandy loam, exceptionally well adapted for fruit. No buildings. 1,000 peach trees 1 year planted. Price, \$2,500.

COUNTY OF WENTWORTH.

170 acres, township of Saltfleet.—13 acres in bush, 10 acres planted out with plums pears, cherries and grapes, and on west side 2,500 peach trees in bearing. Frame house containing 12 rooms, cellars, etc. New frame house containing 6 rooms, frame barn, drive house and sheds. Avenue of spruce trees leading to house. Situated on lake shore, 1 mile from Winona. Price, \$20,000.

18 acres, township of Saltfleet.—Good, rich fruit land, all cleared and planted out with best varieties of fruit, as follows: 350 pear, 400 peach, 20 plums, large vineyard

and apple orchard, all in full bearing and yielding a good annual income. Neat and comfortable 1½-story frame house, 15 x 28, wing 18 x 24. Good barn 25 x 30 with lean to, 2 fruit-packing houses, all in best of order. Situated about ½ mile from Winona P. O. and G. T. R. station and opposite Winona Park. Price, \$8,000. Terms to suit.

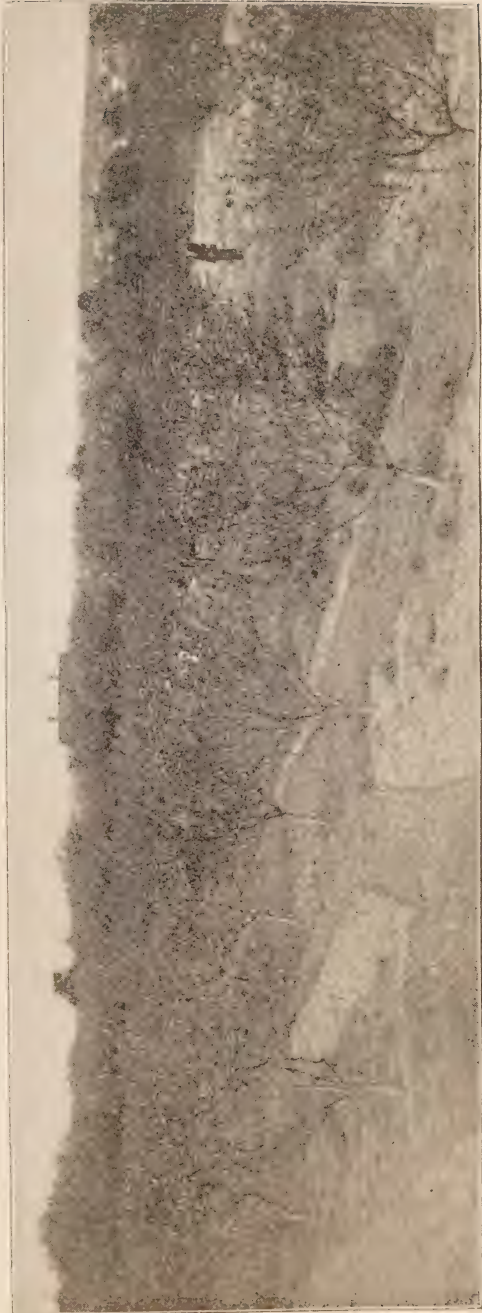
34 acres, township of Saltfleet. —16 acres bearing orchard, 115 apples, 395 plums, 268 pear, 1,070 peach. 3½ acres grapes, 6 acres berry bushes, 2 acres currants and gooseberries. Brick house, 13 rooms, cellars, etc.; frame barn, sheds, etc. Situated on stone road 6 miles from Hamilton, close to Stoney Creek; H. G. & B. Electric Railway pass farm. Price, \$7,000

COUNTY OF HALDIMAND.

165 acres, township of Oneida. —Soil rich loam, slightly rolling; orchard of about 250 fine trees, in full bearing. Fine large stone house (2 stories) and basement 30 x 40, large kitchen and large cellars; well finished throughout. Frame house, good size; 2 large frame barns with stone basements, containing horse stables, cow stables, hay mow. Situated on the Grand river, 3 miles from Cayuga, 1½ miles from R. R. station. Price, \$5,500.

COUNTY OF WELLAND.

136 acres in the township of Crowland.—This is beautifully situated on the banks of the Welland river, across from Port Robinson. There are two sets of buildings on it; about 120 acres cleared; 2 orchards, an abundance of water, and the soil is a good clay loam. Price, \$5,000.



PEACH ORCHARD NEAR LEAMINGTON.

The following properties situated in one of the best sections of the province, namely, near Leamington, in Essex county, which is also a fruit and peach-growing section, are quoted as examples of what may be obtained in that locality. Nowhere in Canada are the winters less severe or of shorter duration than in this section:—

100 acres, half peach land, half loam; 9-roomed brick dwelling, good cellar, frame barn, 50 x 60. Combined carriage house, corn crib and pig pen. Granary, 15 x 30. 1,050 young peach trees, 5 acres apples, pears and cherries. Railway, 2 miles; church and school, 1; Leamington (with its competitive railways, electric light, natural gas, flowing wells, 5 churches, high and other schools, and its tax roll for 1896, through revenue from gas and water, reduced nearly one-half), 5 miles. Price, \$6,500, on terms to suit purchaser.

100 acres, unsurpassed for grain, grazing and roots; 85 cultivated, rest undergrowth. Small house, large frame barn, shed and stable. Small apple, pear and cherry orchard; never failing well; church, 2 miles; school $1\frac{1}{2}$; Leamington, 8. Price, \$3,600. Cash, \$1,600; mortgage for rest.

50 acres, nearly all peach land, beautifully situated on the banks of Lake Erie; fine beach. Rather small frame house and outhouse, good frame barn and shed. In bearing, 1,000 peach trees, 30 apple, 50 plum, 150 quince, 30 cherry and 40 pear, also 4 acres berries and 200 grape vines. In return for the right to utilize gas that may be developed on this land the owner is paid \$100 yearly and supplied with gas for fuel and light. School, $\frac{1}{2}$ mile; Leamington, $2\frac{1}{2}$. Price, including all that accrues from gas lease, \$5,500, on terms to suit.

100 acres, about half peach land, rest suitable for all other crops and grazing. Good frame house with fine cellar; large frame barn and stables; brick granary; corn crib and pig house. Nearly 3,000 peach trees, 300 bearing; fine apple orchard. Leamington, 1 mile. This would be sold in fifty acres, if desired. Price of the whole, \$8,000, on terms to suit.

100 acres, fine for stock and grain. Well watered; 65 cultivated, balance culled bush. Fair frame house; large new frame barn. About 2 acres apples, pears and cherries. Church and school, half mile; Leamington, 4; gas well half; oil well, 2. Price, \$3,600, on terms to suit.

50 acres peach land, charmingly located on the high banks of Lake Erie. Lovely beach; beautiful stream. Poor frame house; fair frame barn and shed. 700 young peach, pear and plum trees; fine apple orchard. School, $1\frac{1}{2}$ miles; Leamington $2\frac{1}{2}$. Natural gas for fuel and light and \$50 yearly from Gas Company. Price, \$5,000; half cash, half mortgage, or 12 acres, unimproved, \$1,200.

The following are quoted as samples of what may be obtained in the way of grain, stock and dairy farms in the Midland district of Ontario:—

COUNTY OF WATERLOO.

212 acres; 175 acres cleared; 37 acres of hardwood bush; soil, clay loam; farm gently rolling; cedar rail fences; watered by 2 wells and a creek crosses back end of farm; 3 acres of bearing orchard besides a large variety of small fruits; a large $2\frac{1}{2}$ -story stone house with 10 well finished rooms besides a stone kitchen attached 14 x 20; cellar in 3 parts 40 x 50; frame woodshed 12 x 18; large cistern; frame bank barn 65 x 80; horse stable 15 x 30; cow stable for 32 cattle; stone pig pen 20 x 30; frame drivingshed 25 x 30; sheep house; root house 15 x 20. This is a first-class grain, stock and dairy farm fitted up with all necessary improvements; only 3 miles from a market on the G. T. R.; 1 mile from a village, school, post office, churches and cheese factory. Price \$14,000; payable \$6,500 cash, balance to suit purchaser.

COUNTY OF PERTH.

150 acres ; 120 acres cleared ; no stumps nor stones ; 30 acres of first-class hardwood bush ; soil, best clay loam ; farm lies well, being gently rolling, no hills nor waste land ; hedge, wire and rail fences ; 2 wells and a creek ; good bearing orchard ; 2-story stone house 28 x 30, with 7 rooms, besides a kitchen attached 20 x 24 ; cellar 28 x 30 ; frame woodshed 16 x 16 ; large cistern ; frame bank barn 56 x 72, with stabling underneath for 8 horses and 30 cattle ; pig pen 15 x 18 ; driving shed 20 x 25 ; sheep house, 16 x 18, and other out-buildings. This is a first-class grain and stock farm, and nearly all tile underdrained ; only 3 miles from a good market town on the G. T. R. ; 11 miles from a city, close to school, churches and post office. Price, \$12,400 ; payable \$4,500 cash, balance to suit purchaser.

COUNTY OF OXFORD.

165 acres ; 161 acres cleared ; 4 acres of hardwood bush ; soil, clay loam ; farm is gently rolling ; rail and wire fences ; watered by 1 well, a spring and a river at one corner of farm ; 4 acres of bearing orchard, besides nearly an acre of small fruits ; frame bank barn, 52 x 70, with straw shed attached, 32 x 50 ; stone stabling under barn, and straw shed for 6 horses and 43 cattle ; pig pen, 13 x 25 ; drivingshed, 25 x 40 ; milk house, 20 x 20 ; good concrete house, 18 x 38 with 8 rooms, besides a kitchen attached, 16 x 24 ; cellar under house, in two parts, 28 x 38 ; 3 pantries ; frame woodshed, 20 x 25 ; soft water cistern, 6 x 6. This is a first-class grain, stock and dairy farm, only 1½ miles from a market town, post office, school and churches ; close to cheese factory and creamery. Price, \$11,500 ; payable \$5,000 cash, balance to suit purchaser.

COUNTY OF GREY.

A first-class 100-acre grain and stock farm of which 95 acres are cleared, the balance valuable mixed timber ; the soil is the richest kind of clay loam ; the farm is beautifully situated and lies well, having only sufficient fall, no flat land or hills ; watered by 2 wells and a never-failing spring at each end for stock ; well fenced with board fence in front and principally straight fences on the farm ; good young bearing orchard. A first-class 1½-story stone dwelling house 26 x 36, with 8 well-finished rooms and 2 halls, stone kitchen attached, 19 x 22 ; a frame woodshed, 16 x 22 ; large cistern ; splendid cellar under house. There is for hired man a comfortable house near the barn, 24 x 28, with 7 rooms and a woodshed, and good well ; a first-class bank barn, 58 x 60, and other necessary outbuildings ; school, ¾ mile. This farm is situated within 1½ miles from a first-class lively market town on the G. T. R. Price, \$6,700 ; payable \$2,000 cash, balance to suit purchaser.

COUNTY OF WELLINGTON.

A first-class 100-acre grain and stock farm ; 93 acres cleared ; 7 acres of fine hardwood bush ; soil is the richest and best clay loam ; farm lies well, every field having nice slope ; fences are all new straight rail, wire, board and post fences ; watered by 2 wells and a spring ; nice bearing orchard ; fine new white brick house, with 7 well-finished rooms, besides a kitchen attached, 14 x 16 ; first-class cellar under house, 18 x 24 ; a first-class new barn, 40 x 60. This is a first-class grain and stock farm, and has all new buildings and new fences. It is beautifully situated, and only 2 miles from a large and lively market town with two railways, the C. P. R. and G. T. R. Farm beautifully laid out. Price, \$5,900 ; payable \$2,500 cash, balance to suit purchaser.

300 acres ; 270 acres cleared ; 25 acres of hardwood bush, balance permanent pasture ; soil, best clay loam ; farm lies handsomely, being gently rolling ; first-class fences, mostly straight rail ; all underdrained that is required ; watered by 5 wells,

with a windmill for pumping water into the house and barn, and a valuable spring creek near one end of farm ; good bearing orchard ; large number of shade and ornamental trees ; frame bank barn, 72 x 82, with hay shed attached, 30 x 100 ; also another frame bank barn, 52 x 60, and a shed attached, 22 x 60 ; stabling underneath barns for 20 horses and 100 cattle ; pig pen and driving house, 26 x 50 ; sheep house, 30 x 40 ; large root house ; brick residence 28 x 41, with 9 rooms, besides a 1½-story kitchen attached, 18 x 28, all heated by furnace ; cellar full size of house ; pantry ; frame woodshed and icehouse, 18 x 28 ; large soft water cistern. There is also a concrete house, 26 x 28, with 6 rooms. This farm has every convenience in buildings, suitability of soil and the advantages of a never-failing supply of pure spring water, with abundance of shaded pastures for stock ; it has always been used as a stock farm for raising thoroughbred stock. It is situated only 2 miles from a market town on the G. T. R., post office and churches ; 1 mile from school. Price, \$21,000 ; payable \$10,000 cash, balance to suit purchaser.

210 acres ; 170 acres cleared ; 25 acres valuable hardwood bush, balance partly cleared ; soil is best clay loam ; farm lies well, no hills nor flat land ; fences are all new, straight rail and wire fences, all new gates and posts ; watered by 2 wells and 2 springs ; water in the stabling ; fine large orchard, all bearing ; a first-class red brick house, 26 x 35, with 11 rooms, besides a 1½-story red brick kitchen attached, 20 x 24 ; soft water cistern in kitchen ; 2 fine cellars—one under house, 26 x 35, and other under kitchen, 20 x 24 ; a new woodshed, workshop and carriage house, 20 x 68, attached to kitchen ; 2 barns together—one a first-class bank barn, 70 x 75, and the other is 32 x 52 ; stabling under the main barn for 35 cattle and other animals ; horse stable, 20 x 40 ; pig pen, 12 x 30 ; sheep house, 18 x 30 ; large root house under barn in stabling ; driving shed and other buildings. This is a first-class grain and stock farm, and one of the best planned and fenced in the country ; a good market town on C. P. R.—only 2 miles ; convenient to post office, school and churches. Price, \$15,500 ; payable \$5,000 cash, balance to suit purchaser.

135 acre grain and stock farm ; 120 acres cleared and free from stumps ; no stones ; 15 acres hardwood bush ; soil, best clay loam ; well fenced with cedar rails and picket and board fences ; water in almost every field ; size of fields, 10 and 15 acres ; 4 acres of fine orchard ; handsome white brick 2-story dwelling house, 35 x 45, with 14 excellent rooms, well finished, besides a kitchen, 14 x 24 ; well, soft water cistern and other necessary conveniences at house ; barn burnt down ; stabling for horses and cattle ; 2 pig pens, room for 20 hogs ; large drivingshed and large sheep house ; also smoke house, ice house and other necessary buildings, and situated only 3½ miles from a city, 1½ miles from village and railway station, and convenient to school and post office. Price, \$8,500 ; payable \$3,400 cash, balance to suit purchaser.

Rented Farms.

Farms may also be rented or leased cheaply ; usually from \$2.00 to \$4.00 per acre per year, if this system be preferred. Long leases are not customary, and the restrictions are not as a rule such as to embarrass the tenant.

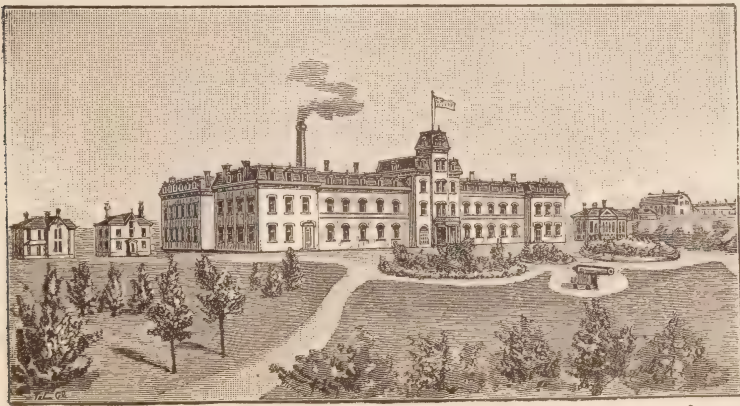
To Farm Hands.

To the efficient farm laborer also, Ontario offers a good chance to better his position. This class of settlers would do well to investigate the cheap and free grant lands of Ontario's northern district (which will be found described elsewhere), where he may obtain for himself and his family a farm and home and every prospect of a comfortable livelihood

If he is willing to work as a farm hand for a year or two on an Ontario farm he will gain experience of Ontario methods and also be enabled to earn something towards making a start for himself. If he be a capable hand he will have no difficulty in finding or in retaining employment, as there is always a good demand for really efficient farm hands, especially for men who are capable of undertaking the feeding and care of live stock.

Farm laborers with families can find ready employment if they are experienced and have the means of providing a little furniture and provisions. If there are young women in the family, able and willing to take places as servants, so much the better.

The demand for female domestic servants is constant in town and country everywhere throughout the Province at all seasons of the year.



ONTARIO AGRICULTURAL COLLEGE, GUELPH.

The rate of wages for experienced servants ranges from \$6 to \$12 per month with board. Good general servants can readily find employment at from \$7 to \$10 per month.

The following rate of wages to farm laborers are averages derived from returns made by farmers on July 1:—

	1896.	1895.	1894.
Per year :	\$	\$	\$
(Yearly engagements). { With board	144	150	156
{ Without board.....	243	246	247
Per month :	\$ c.	\$ c.	\$ c.
(For working season).. { With board	14 57	15 38	16 55
{ Without board.....	24 11	25 45	25 61

Domestic servants on the farm average \$6.11 per month, as compared with \$6.07 in 1895 and \$6.23 in 1894.

THE CANNING AND PRESERVING OF FRUITS AND VEGETABLES IN ONTARIO.

Of recent years a great deal of attention has been devoted in Ontario to the industry connected with the preserving or "canning" of fruits and vegetables. At the present time there are no less than twenty-six factories engaged in this business in the province, some of which are fully equipped with all the most modern and improved utensils and machinery. Fruits, such as apples, peaches, pears, plums, cherries and the various kinds of berries, and vegetables, such as tomatoes, sweet corn, pumpkin, French and other wax beans, green peas, asparagus, etc., are brought fresh from the orchards and the fields to the factories. There they are carefully sorted and prepared, and are hermetically sealed in tins when partially cooked. The process employed serves to retain the natural flavor as well as other desirable qualities of the fruits and vegetables, and to keep them good in any climate. On account of their cheapness and excellence they are a great boon to city dwellers, especially at seasons of the year when such articles cannot otherwise be obtained. Thus in the winter months they may be purchased often more cheaply than they can be had even when in full season.

The demand for canned fruits and vegetables is steadily increasing both at home and abroad, and is likely to continue to do so. In Great Britain, canned apples and tomatoes especially find a ready sale. Apples put up in this way are suitable for pies, puddings, etc., and are invaluable to the housewife, who finds them cored and peeled and ready to be placed in the pie dish to be fully cooked.

Some are still prejudiced against goods preserved in tin cans, but there can be no question that they are quite as wholesome put up in this way as in glass, provided care is taken to empty the contents out of the tin as soon as the same is opened.

THE TIMBER RESOURCES OF ONTARIO.

Originally Ontario was entirely tree covered and the pioneer had to hew down and burn the forest in order to make a farm for himself.

In the southern section of the Province the original forest has now largely disappeared, having gradually receded as the land was brought under cultivation, un'til at the present time only about twenty per cent. of this portion of Ontario is forest land.

Northern Ontario, however, is still a vast tree-covered wilderness, not so rich, perhaps, in variety of species as the south originally was, but still possessing immense timber resources, the extent and value of which it is impossible to estimate. But enough is known to make it reasonably certain that Ontario will continue to be a large exporter of timber for many years to come.

Foremost of the trees of Ontario both for its value and commercial importance is the white or Weymouth pine, the main object of lumbering operations in the Province. It is admitted that Ontario still possesses a larger supply of white pine than is to be found anywhere else on the continent. Next in importance is the spruce, a tree which is found almost everywhere in the north in large quantities. The great and increasing value of the spruce for paper making makes it one of the most valuable assets of the Province.

Throughout Ontario there is a great variety of valuable hardwoods, which supply the domestic consumption and contribute largely to the exports.

In addition to pine and spruce, other valuable timber trees of Ontario are black walnut, several varieties of oaks, elms, ashes, maples, hickories, birches and poplars, with tamarack or larch, hemlock, balsam, basswood (linden), sycamore (buttonwood or western plane), black cherry, butternut or white walnut and others.

Forests on the Crown lands are leased to lumbermen by the Province, the area covered by lease in 1893 being 21,545 square miles. The annual revenue derived by the Province from its timber lands is very large.

The Pulp Wood Industry.

The rapid increase in the past few years in the consumption of spruce and poplar for pulp or cellulose, used in the manufacture of paper textile fabrics and a thousand other articles, has built up a business in Ontario likely soon to rival the great lumbering industry in magnitude. The white and black spruce furnish the most desirable material for wood pulp, and Ontario is the fortunate owner of extensive forests of these trees. While considerable spruce is found intermingled with other forest growth in all parts of the Province, beyond the height of land



LUMBERING ON THE OTTAWA.



THE LUMBER INDUSTRY, OTTAWA.
[140]

on the Hudson Bay slope there extends clear to the shores of Hudson Bay what is probably the greatest spruce forest in the world.

Three things are necessary for the successful development of the manufacture of pulp—suitable wood, extensive water power and suitable labor. All these advantages exist in Ontario. Moreover Canadian pulp wood is of a superior quality and very much sought after by the manufacturers of the United States, as is seen in the yearly increasing demand. With regard to quality Ontario is better situated than Norway and Sweden, if the price obtained in England is taken as a criterion, for in 1893 Canadian pulp was sold in England at an average of \$24.80 a ton as against \$20.77 for the Scandinavian product.

Until recently the forests north of the height of land in Ontario, where spruce abounds, were not considered immediately available. As all the rivers of that territory flow northward, timber could not be floated except to Hudson Bay, and as navigation from this great bay to Europe is regarded as uncertain it has not been thought practicable to establish saw mills on the northern rivers. The cheaply constructed logging railways now in vogue, however, and the probable early completion of one of the trunk railways now chartered to run to James' Bay, will render the forests of this vast territory available as fast as the market demands. Of the immediately available districts where wood suitable for pulp making is found in almost limitless quantities may be mentioned the southern portions of the districts of Rainy River, Algoma and Nipissing, and also the Temiscamingue country on the Upper Ottawa river. In the region of the Lake of the Woods, Rainy River District, spruce and poplar abound, and Rat Portage, the centre of the district, with its fine water power, is likely to become an important point for the manufacture of pulp.

The pulp mill at Sault St. Marie, now just completed—a picture of which is given—is considered to be the largest and best equipped mill in the world. The lake steamers pass right by it through the canals, and the Sault rapids afford power enough to supply many such industries. A second immense mill is now under construction at that point. These mills will draw their supply of pulp wood from the immediately adjacent Algoma territory.



NEW PULP MILLS AT SAULT STE. MARIE, ONT.
Said to be the largest in the world.

ONTARIO FISHERIES.

The commercial fisheries of the great lakes are the most extensive fresh water fisheries in the world. In these waters are found the whitefish, salmon-trout, herring, sturgeon, bass, pickerel, etc.

The total quantity of fish caught in Ontario waters during the twelve years, 1883 to 1894, amounted to nearly 294,000,000 pounds, valued at \$17,660,000.

The principal kinds of fish caught in the period named were :

Herring	97,000,000 pounds.
Whitefish	62,000,000 "
Salmon-trout	63,000,000 "

The Rainy River district, west of lake Superior, embraces some 300 miles of international waters, the fisheries of which are of much importance. The centre of the industry is the lake of the Woods. Although the catch of whitefish in this large district reaches nearly half a million pounds, and staple fish is the sturgeon. The produce of sturgeon caviare and bladders for 1895 represented a value of over \$21,000. The whole of the catch from this district is exported to the United States.

Yield and Value of the Fisheries of Ontario for 1895.

Kind of Fish.	Quantity.	Value.
Whitefish	3,086,435	\$249,665
Trout	5,958,284	595,828
" brls.....	1,040	10,400
Herring "	3,812	17,154
" fresh lbs	7,215,160	216,454
Eels "	131,000	7,860
Sturgeon "	800,590	108,035
" caviare "	62,624	18,787
" bladders "	3,216	2,573
Maskinonge "	353,815	21,228
Bass "	665,220	39,913
Pickerel "	3,299,410	164,970
Pike "	1,229,250	49,170
Coarse fish "	2,937,045	58,741
Perch "	789,760	23,692

Total \$1,584,474

There are 3,260 men employed in the industry in Ontario, the total capital invested being \$852,000.

The fisheries of Hudson Bay are considerable, but they are not included in the statements of the Department of Marine and Fisheries. The Hudson Bay Company have established salmon fisheries along the lower part of the several rivers discharging into Ungava Bay. The fishermen employed are all Esquimaux. Trout are taken in large quantities and of great size, the largest reported weighing fourteen pounds



PORT CALDWELL, LAKE SUPERIOR.

and the average being from six to seven pounds. In addition to salmon and trout, cod, whiting, hake, pollock and other fish abound.

The whale fisheries of Hudson Bay are also extensive, and for forty years past American whalers have regularly found harvests there. The value of fish and whale oil alone taken from Hudson Bay by United States whalers and the Hudson Bay Company is estimated at \$150,000 a year for the past ten years. The hair seal is also very numerous in these waters.

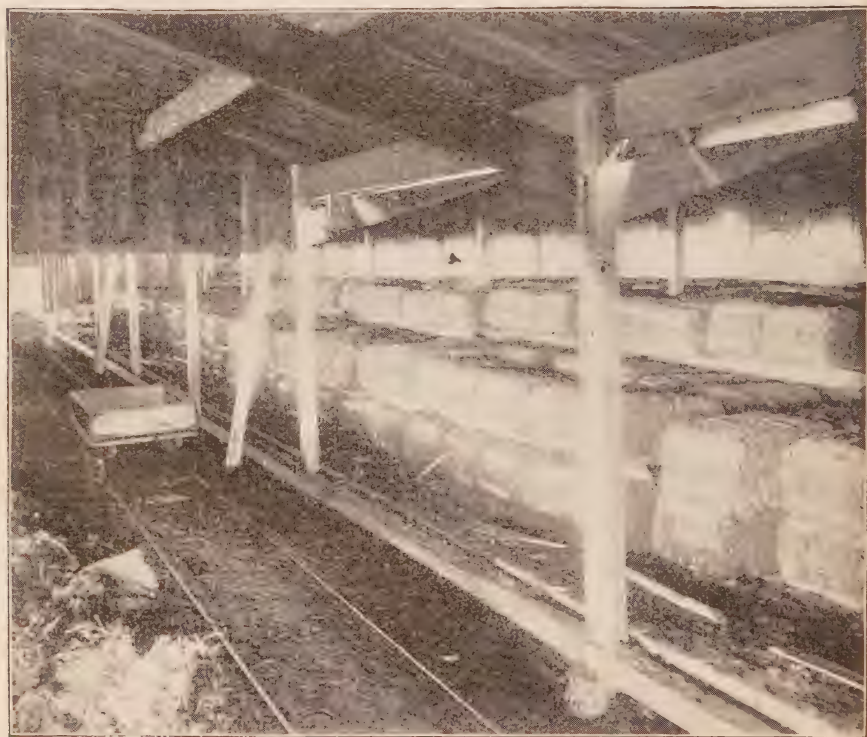
PEAT AND MOSS LITTER.

The fact that as yet no workable beds of coal have been discovered in southern Ontario confers a large degree of importance upon the other kinds of fuel which the Province possesses. These are wood, petroleum, natural gas and peat. The stock of the first-named in Ontario is still great, while of petroleum and natural gas, the former is as yet little used for fuel outside the place of production, and the latter is being rapidly conveyed out of the country for the benefit of foreign consumers. The fourth and last variety of fuel occurs in immense quantities in many parts of the Province, wherever peat bogs have been formed by obstruction of the natural drainage or other causes. Such bogs are usually covered with a growth of sphagnum moss, from the several varieties of which most of the peat in Ontario and elsewhere takes its origin. This moss year by year decays at the root and grows at the top, and the gradually accumulating deposit ends at length by filling up the bog on which it grows. The lower and more completely decomposed layers are darker in color, more compact in texture, and freer from unaltered vegetable remains than the higher strata. The latter, including the undisturbed surface of the bog, possess comparatively little value for fuel, but are now being utilized in Holland, Germany, England and other European countries in the manufacture of moss litter, an article used instead of straw in the bedding of horses and cattle, and also in the sanitary disposal of sewage and effete matter.

The manufacture of peat into fuel has been done from time immemorial in the old countries of the world by hand labor—in a word, by cutting it into blocks of suitable size and drying it in the sun. When the peat is of good quality and the process of preparing it has been carefully done, the resulting fuel is excellent, burning with a good flame and heat, and leaving little ash. Its chief objections are its bulkiness and the difficulty of thoroughly expelling and excluding the moisture, both of which features render it unsuitable for transportation to any considerable distance, and confine its use to the neighborhood of the bog from which it is cut. The necessity for a more economical method of preparing peat for fuel than by hand labor, and the desirability of producing a denser article more thoroughly freed from moisture, became apparent as soon as the attempt was made to turn peat to account in manufacturing industries on a large scale. Very many attempts have been made and many processes invented to produce such an article. These methods have usually included some or all of the following features: grinding or macerating the raw peat and so reducing it to a pulp, moulding or dividing the pulp into blocks of convenient shape and size, and finally drying them either in the open air or by artificial heat. In some processes the triturated peat is rendered more compact by severe pressure. By means of



PEAT-BOG, WELLAND COUNTY, ONT.



BALES OF MOSS-LITTER READY FOR SHIPMENT.

this kind a good article of fuel has in many cases been produced, but in the majority of instances the cost has proven so great as to make competition with coal or wood impossible. This problem of turning out a cheap and efficient peat fuel is still engaging the ingenuity of inventors, and when a solution is reached, as it no doubt some time will be, the vast stores of this little-regarded material in Ontario will assume an importance at present denied them.

Many areas of peat are known to exist in Ontario, and many more would doubtless be brought to light were they to become valuable. The most extensive bogs are those of the Hudson Bay slope, where it has been estimated they cover 10,000 square miles of territory. In the district between the Ottawa and St. Lawrence rivers, in the vicinity of lake St. Clair, in the counties of Elgin and Waterloo, along the Holland river in York and Simcoe counties, in Parry Sound and Nipissing districts, along the line of the Ottawa, Arnprior and Parry Sound and Canadian Pacific railways, particularly of the latter from lake Nipissing to Rat Portage, and in Welland county along the Welland canal, are bogs of larger or smaller extent, aggregating doubtless many thousands of square miles. At the last-mentioned place, on the line of the Welland canal, a bog of 5,000 acres in area is being exploited by the Canadian Peat Fuel Company, who have erected a manufactory and are now engaged in turning out moss litter, for which a ready market exists in the United States. They also propose to work the lower beds for fuel and manufacture the peat by a process which has been patented by the president of the company, Mr. A. A. Dickson. We give a couple of views illustrating the company's operations.

NORTHERN ONTARIO AS A FIELD FOR SETTLEMENT.

It is doubtful whether any country can present greater advantages to settlers of the right class than the Northern Districts of Ontario. To the poor man it offers cheap and fertile lands, a healthful climate and an ultimate competency as a reward for his toil. But besides this, it has all the advantages of stable institutions and government, freedom from war's alarms and from the depredations of savage tribes. Life and property in Northern Ontario are as safe as in Great Britain itself. Few countries can offer more than this, if as much.

It is not claimed that a position of independence can be achieved without some knowledge of the methods of farming and without continuous industry and self-denial. Any country that claims otherwise, asserts that which is false and misleading. New settlers must everywhere suffer hardships and undertake labors which weaklings should not attempt. The settled part of Ontario has been wrested from the forest only at a cost of great hardship. In these days the labor of chopping out a bush farm, although severe, is child's play compared with what the former generation had to undergo. But it is claimed that a man possessing good health, strong arms, a resolute heart, and a rudimentary knowledge of agriculture, may go into these regions and make for himself not merely a living, but a competency as a result of his industry, and at the same time be accessible to markets and to the necessities and even many of the comforts of civilization.

THE RAINY RIVER DISTRICT.

Boundaries.

Of the newer sections of Ontario, the one to which the greater amount of attention is being drawn at the present time is the country extending from the west of Lake Superior to the Lake of the Woods on the Manitoba boundary. It comprises the southern portions of the Rainy river and Thunder Bay districts, lying immediately north of the State of Minnesota. The international line forms the southern limit and the C. P. R. may be said, roughly speaking, to be the northern boundary, thus constituting a parallelogram of country about three hundred miles and from eighty to one hundred broad.

Nature and Resources of the District.

Taken as a whole, the district must be considered as a mining and lumbering rather than a farming country, yet it has the advantage of possessing here and there valuable tracts of farming land as fertile as

any in Ontario and capable of supporting a large agricultural population ; although compared with the extent of the country, the amount of arable land is of course exceedingly limited. In considering the capabilities of this country, it is important to note that the three great wealth-producing industries, mining, lumbering and farming, are here found in close proximity to the mutual advantage of each.

It is in this district that the recent gold discoveries which have attracted so much attention have been chiefly made, and there can be no doubt that its mining interests will in a few years assume large proportions.

The lumbering industry is considerably developed, but it is only lately that the wealth of its mineral deposits has been made known. It is the activity of these two industries and the highly remunerative market they afford for farm produce which renders this region perhaps the most attractive field for settlement that Ontario has to offer at the present time.

Water and Railway Communication.

A very important feature of the district, and one bound to play an important part in the development of its mining and agricultural resources, is the completeness of its water systems as a means of communication. The southern and western boundaries of the region consist of a series of international waterways, comprising the Lake of the Woods, Rainy river, Rainy lake and Pigeon river. But in addition to these there are chains of lakes and rivers intersecting the country in every direction, rendering travel by canoe to any point practicable and comparatively easy.

The main line of the C. P. R. extends right through this district from east to west, placing it within twenty-four hours railway journey of Toronto.

The most important body of water is the Lake of the Woods, which is about one hundred miles in length, and has a coast line of from three to four hundred miles. It is a lake remarkable for its natural beauty, is full of islands of all sizes and is a favorite summer resort for the people of Manitoba.

The Rainy river, a feeder of the Lake of the Woods, is a navigable stream averaging about five hundred feet in width, and has a length of a hundred miles. It is almost uniform in width from source to mouth, and tugs and steamers ply over its whole course. It is considered one of the most important and beautiful rivers of the country. This river connects with Rainy lake, where a fall occurs at the village of Fort Frances. The completion of the lock at this point, which is under construction, will render navigation continuous through Rainy lake and complete an unbroken navigation system of over three hundred miles.

The chain of navigation afforded by Rainy river, Rainy lake and the Lake of the Woods has an extent of two thousand miles of coast line, which exceeds that of any other series of inland navigation on the continent with the exception of the great lakes. Besides those mentioned there are many other lakes requiring but slight improvements on the connecting streams to enable vessels from Rainy lake to pass into them.

EXTENT OF FARM LAND.

It is estimated that there are between three and four million acres of arable land in the Rainy river district.

The greatest stretch of unbroken agricultural country is found in the valley of the Rainy river between the Lake of the Woods and Fort Frances. It is not confined to the river, but extends north-easterly along the shores of Lake of the Woods. This by no means includes all the good land in the district, as there are other valleys of excellent land, but none so large as the Rainy river valley.

Rainy River Valley.

The country on the Canadian bank of the Rainy river is an unbroken plain of fertile land extending back for a distance of from ten to thirty miles. The soil consists of a deep deposit of glacial clay, overlaid by a great depth of the richest alluvial mould. It is of unparalleled fertility and nowhere else in Ontario is there a stretch of eighty miles that can compare with it.

The land is adapted to all kinds of farming. It is mostly covered by timber suitable for fencing, firewood and building material, and is easily cleared.

The great advantage of this country, especially as regards water and wood, over a prairie country have attracted a number of settlers from the United States and Great Britain, as well as from the older parts of the Dominion. The land fronting on the river is all taken up, and in some places settlement extends back for several miles. Some of the settlers have been located there for a considerable time and have good houses and barns, large clearings, good fences and well bred stock.

Unfortunately this agricultural section is at present to be reached only by water from Rat Portage, but a road known as the Ontario and Rainy River Railroad has now been liberally subsidized by both the Provincial and Dominion governments from Port Arthur and Fort William to Fort Frances. Its construction will be begun without delay, and direct railway communication between the Rainy river valley and lake Superior will probably be completed within a year or two's time. The route will lie close to the great Atik-oka and Mattawan iron ranges, and will pass through the Saw Bill lake, Seine river and Shoal lake gold mining sections.

Free Grants.

The Ontario Government gives a free grant of 160 acres to every bona fide settler, male or female, who is the head of a family. He may also obtain eighty additional acres adjoining at one dollar per acre, payable in three years, while any or all of his sons may secure 120 acres free and purchase an additional eighty acres at one dollar per acre.

COMMERCIAL CENTRES.

The most important commercial centres in the region are the towns of Port Arthur and Fort William in the east and Rat Portage in the west.

Rat Portage.

Rat Portage is the principal town of the Rainy river district. It is situated at the northern end of the Lake of the Woods and on the main line of the Canadian Pacific Railway, at a distance of 1,154 miles west of Toronto.

A few facts in regard to the past and present history of the town will be of interest. Rat Portage dates back to 1876, when the C. P. R. contractors located their camps in the neighborhood. Previous to that time it was for many years a trading post of the Hudson Bay Company. Its situation at the junction of the Lake of the Woods and the Winnipeg river is very advantageous.

For several years the town grew but little and was not incorporated till 1891, when it had a population of 2,200. From that time the population has steadily increased, and in 1895 it amounted to nearly four thousand. The increase of 1896 has exceeded that of any previous period, and the population is now between four and five thousand.

Its Industries; Lumbering.

Apart from being a mining centre, which it is becoming with the development of the gold fields, the town has three important industries which contribute greatly to its prosperity. The lumber mills located in the vicinity supply the greater part of the lumber used in Manitoba and the North-west Territories. The largest concern is the "Ontario and Western Lumber Co.," which owns six saw mills and six planing mills, all of which are lighted by electricity. They give employment to four or five hundred hands, and their pay roll amounts to \$20,000 per month. Another company is the "Keewatin Lumber Company," whose mill is operated entirely by water, with a capacity of twelve million feet per annum. These figures show that the industry has already reached very considerable proportions, and as the western country develops it is bound to increase still further.

Fishing Industry.

Next in importance comes the fishing industry of the Lake of the Woods, of which Rat Portage is the centre. It is estimated that this business affords employment for 500 men, and that the amount of money brought into the town in 1885 on account of it was \$200,000.

It will be a surprise to many to learn that the Lake of the Woods produces about seventy-five per cent. of the caviare supply of the world,



RAT PORTAGE, RAINY RIVER DISTRICT.

which is shipped to Europe and there prepared for the market. This delicacy is prepared from the sturgeon, which abound in these waters. The total catch for 1895 amounted to five million pounds, the greater portion of which was sturgeon, from which nearly two hundred thousand pounds of caviare was made.

Flour Milling Industry.

At Keewatin, which is virtually an annex of Rat Portage, the "Lake of the Woods Milling Co." has the largest flour mill in Canada and one

of the most perfectly constructed and fitted up in the world. It has a capacity of 2,200 barrels a day, and its flour is famed for its purity in Canada as well as in Europe. In connection with this mill there are two high elevators, having a capacity of 700,000 bushels. The machinery is driven entirely by water and has a minimum of 1,300 horse-power available.

Other Features.

Another feature of Rat Portage that deserves mention is its excellent water power. Less than a couple of miles from the centre of the town are the falls of the west branch of the Winnipeg river. These falls are capable of generating a constant supply of 30,000 horse-power and are about to be utilized for commercial purposes.

Wood Pulp Industry.

An industry that will soon spring into existence in the district is the manufacture of wood pulp. There is reported to be an almost inexhaustible supply of wood in the district suited to this purpose, and as the water power above referred to will be available for this industry, the business men of Rat Portage confidently look forward to its becoming one of the largest pulp producing centres.

There are thirty-five craft of different kinds in the service of the district, including twenty-three steamers and small tugs.

Timber Resources of the District.

Rainy lake, Rainy river and the Lake of the Woods are international waters. A line drawn through their centres divides Ontario from the State of Minnesota. The area of the country on both sides of the line draining into this basin comprises not less than thirteen million acres. It contains immense pineries from which the prairies of the west are supplied with their lumber and building material. The annual cut now made by the Lake of the Woods' mills averages from seventy to a hundred million feet. Besides pine, there is much other valuable timber in the region, especially spruce for pulp. All this lumber must eventually find its way via the various tributary waters to the main waterway, and its handling and cutting, besides furnishing employment for large numbers of men, will afford one of the best markets the settler can have for his products.

Port Arthur and Fort William.

Port Arthur is a town of some importance, and also a lake port. It is situated on Thunder Bay, at the western end of lake Superior, and may be styled the gateway of the great gold fields of northwestern

Ontario. It is on the main line of the Canadian Pacific Railway and has at its back some very fine agricultural land very similar to that of the Rainy river valley, besides a country rich in gold, silver and iron. Settlers of the right class would do well there, but they should not come unless prepared to stand the rough, hardy life of the backwood.

Within a few miles of Port Arthur is Fort William, a town of two thousand inhabitants situated near the mouth of the Kaministiquia river, a broad, deep stream with firm banks, affording extraordinary advantages for lake traffic. It is the terminus of the Canadian Pacific Railway Company lake steamships. The immense water power afforded by the Kakabeka falls near this point is soon to be developed for manufacturing and other purposes. This fall has a drop of 126 feet and a capacity of 40,000 horse power.

ALGOMA AND NIPISSING DISTRICTS.

Leaving Port Arthur, and returning eastward along the north shore of lake Superior, the country is found to be wild and rocky in the extreme. Whatever may be its mineral wealth, which has not yet been ascertained to any extent, it certainly is not suited to agriculture. At Sault Ste. Marie, however, at the junction of lakes Superior and Huron, another stretch of country adapted for settlement is reached. At this point are two important business centres, known as the "twin cities of Sault Ste. Marie," one on the American and the other on the Canadian side. All vessels sailing into lake Superior have to pass through one of the ship canals that here connect the two lakes, and the amount of traffic is very great.

The country to the north of lake Huron is known as the Algoma District, and includes St. Joseph and Great Manitoulin Islands. It contains a large proportion of fertile land, as do also the districts of Muskoka, Parry Sound and Nipissing, lying to the east of lake Huron, and between that lake and the Ottawa river. These districts even in the southern portion are, as a rule, but sparsely settled, yet considerable development has already taken place. Numbers of settlers from the older sections of the province, and from other countries as well, have made themselves homes there and are now in a prosperous condition. Already there are thriving settlements not only on the large islands of St. Joseph and Manitoulin, but here and there along the north shore also, from Goulias bay, about twenty or twenty-five miles north-west of Sault Ste. Marie to the valley of the Mississauga, some eighty miles to the eastward; and elsewhere. There are several agricultural societies and farmer's institutes in the district. At Sault Ste. Marie every autumn the East Algoma Agricultural Society hold a three day exhibition, at which a fine exhibit of grains, grasses, roots, fruits and vegetables may be seen.



FARM AND HOUSE IN ALGOWIA, ONT.

The country is readily accessible, the Canadian Pacific running through it from end to end, and this fact, together with its nearness to centers of population, and the cheapness of its land, ranging from 50 cents to \$2.50 per acre, render it an attractive field for settlement. There seems to be no doubt that it will one day become the seat of very large sheep raising, dairying and stock raising interests, for which purpose it is pre-eminently adapted.

Sault Ste. Marie is the central point of the Algoma district. The town is easily reached either from older Ontario or the United States. It is situated on the "Soo line," a branch of the Canadian Pacific, connecting with St. Paul and Minneapolis in the west and Boston in the east. In addition, several steamship lines call there.

Nature of the Country.

The land while very rich is not in an unbroken, continuous stretch, as is the case in the southern portion of Ontario. Its physical characteristics and appearance are entirely different, and is adapted to special lines of agricultural production. As has been described, this region belongs to the Laurentian and Huronian formations of Canada, and consequently we find that the rocks of these systems break up and intersect the land in the form of ridges and masses ("bluffs" as they are locally called), while the fruitful land is found in the alluvial deposits contained in the valleys or depressions which lie between. Taken as a whole, the country may be described as an undulating plateau or table land, elevated some 600 or 1,000 feet above the sea level, covered for the most part by a vigorous growth of forest. Between the ridges and protected by them, stretches of arable land, often unbroken for thousands of acres, wind in and out. The broken nature of the land has certainly been a drawback to the development of the country, and its settlement has been slow in consequence, many failing to realize that so much good farm land exists there. But first appearances are in this case deceptive, and often when a settlement is established it turns out that the amount of land fit for cultivation is even greater than was at first supposed.

The country exhibits an endless variety of hill and dale, rapid and cascade, lake, river and forest. Its numerous lakes and rivers constitute one of its marked features, and no country could be more abundantly blessed in this respect. Water of crystal purity abounds everywhere. Moreover, it has been found that the soil is of surprising richness. It will grow to perfection as many varieties of grasses and grains as grow anywhere, and grow them well; and its root crops are of such uniform excellence and certainty as to put the district's future for stock raising beyond a doubt. In cereals and grasses, its virgin soil produces crops which exceed in yield and quality the most favored sections of the United States, and even the average of Ontario generally.

Suitability for Dairying and Stock Raising.

With a soil so fertile and so admirably adapted to the growth of grasses, roots and vegetables, and with such a plentiful supply of pure water, it is, as will at once be surmised, a typical country for the production of mutton and beef, cheese and butter. It is indeed a dairying and stock raising country par excellence. Even its rocky bluffs, clothed as they are with a vigorous growth of timber, protect the pasture land of the valleys where cattle and sheep may roam and graze for seven months of the year, and are not, therefore, without their compensating advantages. The sheep is exactly adapted to northern Ontario, and the supreme excellence of the mutton raised in this region is a matter of note.

As a dairy, stock and sheep raising country it has all the advantages of cheap land, good transportation facilities, rich soil, good water, and cheap building material, while its climate is unexcelled for the production of vigorous stock and vigorous men.

Climate.

As to the length and severity of the winter season, it has been proved that northern Ontario has nothing to be afraid of in comparison with other sections supposed to be more favored. The winters of Algoma and Nipissing although cold, are infinitely more pleasing and less trying than the winters of the western states, particularly Dakota and Minnesota; indeed, the southern portion of these districts is farther south than the greater part of the states referred to, and taken latitude for latitude the Canadian climate is more temperate than the American. In summer the heat is moderate and the rainfall abundant.

Mineral Wealth.

The Algoma and Nipissing districts are known to be rich in a variety of minerals. Although little has been done to determine what the mineral resources of this region really are, still enough has been ascertained to show that it has a future before it in this regard. Gold, silver, copper and iron have been discovered to the north of lake Huron, and elsewhere, and it contains the most extensive nickel deposits in the world, which are now being worked in the vicinity of Sudbury.

THE TEMISCAMINGUE COUNTRY.

Another agricultural section in the northern part of the province which should be mentioned is the Temiscamingue country. This country borders on lake Temiscamingue, a broadening of the upper Ottawa river. It is in the Nipissing district, already referred to, and about two hundred

and fifty miles north of Toronto in a direct line. It is reached from Mattawa on the C. P. R., partly by railway, along the eastern bank of the Ottawa river, and afterwards by steamboat to lake Temiscamingue.

The country does not present the same physical characteristics as the rest of the district, as the geological formation, instead of being Laurentian and Huronian, here suddenly changes and becomes similar to that of southern Ontario. The country rock formation is known as the Niagara limestone, and it extends from the upper end of lake Temiscamingue for a great distance to the northeast. This is overlaid by a rich alluvial soil, level in character, and equal in fertility to any in the province.

The land is lightly timbered and may be cleared without excessive labor. Its capabilities as to climate and productiveness are very similar to those of the country above described, but its unbroken character gives it an additional attraction.

There are fully 600,000 acres of fertile farm land in this section, which has been placed on the market at fifty cents per acre.

The country is very little settled as yet, but is attracting quite a number of settlers from the older parts of Ontario and Quebec.

The region of the Upper Ottawa is to-day one of the most important lumbering countries in Canada, and affords the settler an excellent market for the products of the farm.

CHARACTER OF THE POPULATION.

The population of all the newer sections of Ontario may be characterized as quiet, orderly and distinctly religious. There has always been in even the most remote back-woods settlements a God-fearing and law-abiding sentiment, which has made life and property as safe as anywhere in the world. The older settled parts of these districts are well supplied with churches and schools.

The Dominion census of 1891 gives the population of Algoma as 14,439, and of Nipissing as 13,000.

TO OBTAIN FURTHER INFORMATION.

Those who desire to obtain fuller particulars regarding the cheap and free grant lands of Ontario in the districts above referred to, should make application for the Ontario Northern Districts pamphlet either to P. Byrne, Ontario Government Agency, 7 James Street, Liverpool, or to the Department of Agriculture, Toronto, Ontario, Canada.

Information regarding all matters connected with immigration will be furnished on application, personally or by letter, to

DAVID SPENCE,
Secretary, Immigration Office,
Old Parliament Buildings, Front Street West,
Toronto, Ont.
Or to

PETER BYRNE,
7 James Street,
Liverpool, England.

Copies of this pamphlet may also be obtained free of charge at the above addresses, and from the Ontario Department of Agriculture.

Western Cities in the

same Latitude.

* ST. PAUL.

* MILWAUKEE.

* CHICAGO.

Cities of Europe in

same Latitude.

* VENICE.

* TURIN.

* BORDEAUX.

* MODENA.

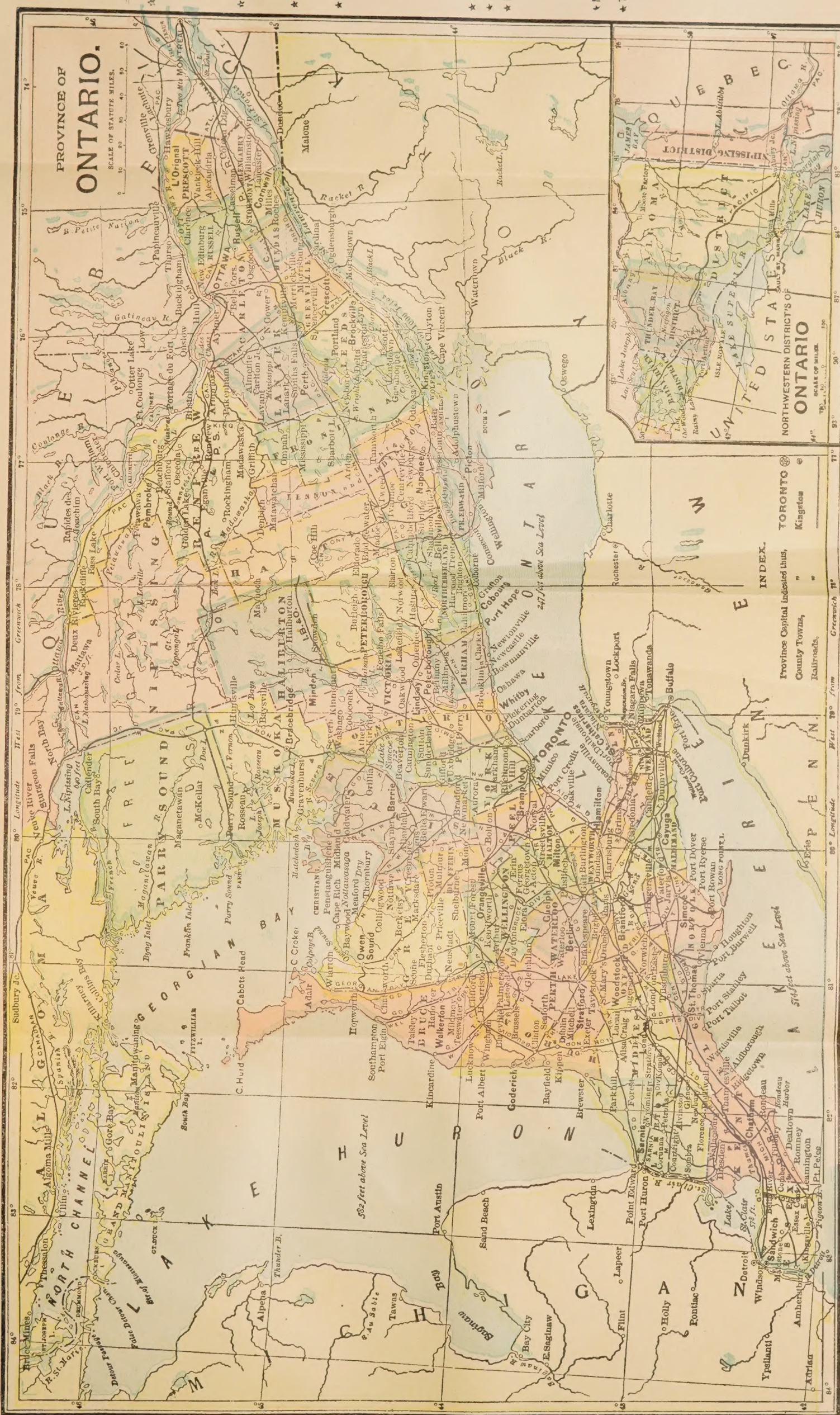
* MENTON.

* PAU.

* NICE.

* MARSEILLES.

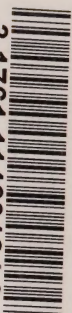
* TOULON.



INDEX.

Province Capital indicated thus,	TORONTO
County Towns,	Kingston
Railroads,	

GOVT PUEB



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